

# The Media Streaming Journal

November 2015



Covering Audio and Video Internet Broadcasting

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### Welcome to The Media Streaming Journal

The rise and fall of the super broadcaster.

The deregulation of the broadcasting industry in the latter part of the 20th century was supposed to allow the general public more access to a variety of information and entertainment. This deregulation spawned the growth of the super broadcaster corporations. Clear Channel and IHeart Radio (formerly Cumulus) rapidly acquired competing stations from coast to coast.

The drive to expand media penetration continued and the super broadcasters soon became an indelible mark on broadcasting. These super powers have spent millions for control of the broadcast market and have begun to cut corners to continue their strive for numbers. Now these same super broadcasters are bleeding dollars with no end in site. IHeart Media stock has fallen below a dollar a share, and Cumulus Radio is looking to spin off advertising assets to cover substantial financial losses.

What will the downsizing or collapse of the super broadcasters do for the online broadcaster?

Will the possible loss of streaming royalty revenue from these two media supergiants force the media royalty agencies to take a closer look at how they structure royalty payments?

Will these events force broadcasters to diminish their online media presence?

Times are changing for the broadcast industry, and it will be interesting to see how the changes are dealt with.

Who knows what tomorrow may bring.

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

[www.linkedin.com/pub/david-childers/4/736/72a](http://www.linkedin.com/pub/david-childers/4/736/72a)

The Grand Master of Digital Disaster  
(Editor In Chief)

## The Media Streaming Journal

**The Media Streaming Journal is looking for writers and articles to publish.**

The Media Streaming Journal is looking for unique and original articles written about Internet broadcasting. This includes audio, video, production, planning and all aspects of Internet broadcasting. If your submitted article is selected for publication, a link to your website or station will be published along with your submitted article.

Contact the Media Streaming Journal today for more information: [editor@radiosolution.info](mailto:editor@radiosolution.info).

### What is in this edition of the Media Streaming Journal

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# RADIO SOLUTION

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## 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.

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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.





## **Server Security**

### **Robert Andrews**

The increase of computer breaches and hacker attacks clearly indicates that computer security is a very important realm of expertise. These threats originate from individuals, cultural, social, and political affiliations as a means to manipulate or create havoc.

System security is not an exact science, but is an ongoing process. Many aspects need to be considered to ensure proper and sustainable security. The mantra of security should be aspired to by every one at the broadcast station. Hackers or computer marauders will not discriminate to achieve their goals, every one is a prime target. Security is only as good as the people implementing it. The lack of enforcement of security standards can allow great damage to occur, regardless of how many manuals or memos are created.

Both the computer system hosting the media server and the actual media server software should be considered equally important for maintaining security. A media server or its computer host that can be compromised or breached by unauthorized persons can financially ruin a broadcaster. This situation can also be exploited to discredit the broadcaster or drive away their audience.

Security starts with the individual; make it a habit to be secure and computer conscious.

Think it. Live it. Do it.

#### Physical

Physical security is the first line of defense against unauthorized access or use of a computer system. This prevents unauthorized people from gaining access to the computer system.

- Ensure that the computer hosting the media server is in a secure area.
- Ensure that access to the computer hosting the media server is limited to personnel that have a valid need.
- Ensure that the computer hosting the media server is connected to an uninterruptable power supply.
  - \* This will provide continuous service if the primary power provider fails.
- Ensure that the location of the media server is well ventilated and cooled.
- Ensure that the computer hosting the media server is connected to an alternate network provider.
  - \* This will provide continuous service if the primary network provider fails.
- Ensure that all electrical safety considerations are taken to prevent damage to the computer equipment.
- Log out of the computer hosting the media server when personnel are physically away from the computer system.
- Lock the computer screen when personnel are not directly in front of the computer system.

#### System

System security is the second line of defense against unauthorized access or use of a computer system. This will allow the computer to properly function as problems with the computer operating system are fixed with upgrades.

- Keep the operating system up to date.
  - \* It is extremely important to patch and update the computer system on a regular basis; especially

critical updates.

- Do not install software that can allow unauthorized remote users to access the computer or allow malicious software to modify the computer system.

### **THINK BEFORE YOU CLICK.**

#### Software

Software security is the fourth line of defense against unauthorized access or use of a computer system. This will allow the media server software and media server support software to properly function as problems with the software are fixed with upgrades

- Make sure that the media server software is installed under the user account.
- Make sure that the media server support software is installed under the user account.
- Never install common operational software under the administrative or root account.
- Do not run common tasks as a root or administrative user.
- Make sure that the media server software is up to date.
  - \* Install patches and upgrades immediately upon notification.
- Make sure that all media server support software is up to date.
  - \* Install patches and upgrades immediately upon notification.
- Subscribe to the media server software's announcements list for security or maintenance issues.
- Subscribe to the media server support software's announcements list for security or maintenance issues.
- Periodically check the media server software's website for security or maintenance issues.
- Periodically check the media server support software's website for security or maintenance issues.

#### Various Computer Operating System Security Notifications

Linux Redhat Security  
[access.redhat.com/security/updates](https://access.redhat.com/security/updates)

Linux Centos Security  
[lwn.net/Alerts/CentOS/](https://lwn.net/Alerts/CentOS/)

Linux Fedora Security  
[lists.fedoraproject.org/mailman/listinfo/security](https://lists.fedoraproject.org/mailman/listinfo/security)

OpenBSD Security  
[www.openbsd.org/security.html](https://www.openbsd.org/security.html)

Linux Debian Security  
[lists.debian.org/debian-security-announce/](https://lists.debian.org/debian-security-announce/)

FreeBSD Security  
[security.freebsd.org/](https://security.freebsd.org/)

Linux Ubuntu Security  
[www.ubuntu.com/usn](https://www.ubuntu.com/usn)

Apple Security  
[www.apple.com/support/security/](https://www.apple.com/support/security/)

Linux OpenSuse Security  
[lists.opensuse.org/opensuse-security-announce/](https://lists.opensuse.org/opensuse-security-announce/)

Windows Security  
[technet.microsoft.com/en-us/security/bulletin](https://technet.microsoft.com/en-us/security/bulletin)

#### United States Computer Emergency Readiness Team (CERT) Notifications

Cyber Security Bulletins  
[www.us-cert.gov/current](https://www.us-cert.gov/current)

Cyber Security Bulletins  
[www.us-cert.gov/cas/bulletins](https://www.us-cert.gov/cas/bulletins)

## Password

Password security is the fifth line of defense against unauthorized access or use of a computer system. This is usually the weakest link in system security. The purpose of a password is to prevent unauthorized people from gaining access to a computer. Using simple or common words for passwords is the equivalent of not using any password protection.

- Select strong passwords for the ADMINISTRATOR / ROOT login. This password should contain a minimum of 15 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and two special characters.

- Select strong passwords for the USER login. This password should contain a minimum of 15 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and two special characters.

- Select strong passwords for the MEDIA SERVER software login. This password should contain a minimum of 15 characters, that should include at least 2 upper case letters, 2 lower case letters, 2 numbers and two special characters.

- Do not use identical passwords for system logins.

\* Root - Different password

\* User - Different password

\* Media server - Different password

- Establish a set routine for changing ALL system passwords on a regular basis.

\* Root

\* User

\* Media server

- Do not store access passwords on the computer.

- Maintain physical security of all access password information.

## System Logs

Monitoring the host computer and media server system logs can provide an immediate indication of system or software's breach, fault or trouble.

- Monitor the host computer system logs for the following indications:

\* Unusual activity

\* Hardware fault

\* Software fault

- Monitor the media server logs for the following indications:

\* Unusual activity

\* Hardware fault

\* Network fault





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### **Introduction to Effective Information Research David Childers**

#### Why Do We Need Information And Why Is It So Important

Information is useful as guidance for selecting a proper course of action or for making critical decisions. Individuals, organizations, businesses and governments require accurate information to ensure that all decisions made are based on reliable information. The ability to make sound decisions are based on the quality and relevance of the information obtained.

Information also has a value, and that can be determined by how much of a benefit the information is. Did the information assist you, your organization or business in achieving a goal? Did the information help you, your organization or business in saving money? Did the information help you, your organization or business in raising more money?

The ability to adequately research and collect specific information requires considerable skill. The individual must have the ability to formulate specific questions and seek specific answers. These same skills are used by news reporters when they are doing an interview. The news reporter must thoroughly understand all aspects of the story that they are covering and have the ability to ask many specific questions. Competitive intelligence is more than merely asking a few questions; it is the skill of researching and collecting information. This ability is based on scientific principles used by many of the intelligence services worldwide. It has become a significant function for many business operations to provide a competitive edge.

As a consumer, you look for the best prices and best quality of goods to be purchased. That is a form of competitive Intelligence. You use newspapers, magazines, and the Internet as sources of that information. These sources of information are publicly available and open to anyone. Business can also draw upon the same sources and types of information that are accessible to the public. Businesses can use this information to be aware of consumer trends, market trends and patterns that their customers follow. This information enables the business to stay profitable.

Publicly accessible information is readily obtainable and can be of great benefit to businesses without any negative legal ramifications. The ability to research and collect publicly available information is typically not an illegal activity. (**This depends greatly on where you live and the governing laws.**) Information that is retrieved from illegal sources, covered by Intellectual property rights or controlled by governmental mandates can, however cause severe repercussions for the information specialist.

#### The Purpose Of Information Research

The purpose of Information Research is to support business owners and management in gaining an understanding of their business market trends, general business market trends, consumer market trends and competition market trends.

Information specialists ensure that the Information Research activities operate effectively and efficiently. They are the business management's primary advisers on employing information research assets and directing information collection. Information collection specialists also support their business management with analysis and production of reports based upon the collection of information. These reports provide timely, relevant, accurate, and predictive assessments that are tailored to the business management specific information needs. The reports also help business management visualize the current business environment, organize their assets, and control operations to achieve their financial objectives.



Decisions that affect the operation of the business are made on a frequent basis and include the following; advertising, promotion, product sales, store location and hours of operation. These decisions require factual information that is relevant and timely to provide the proper basis for making an informed decision. Basing business decisions on haphazard guesses or general assumptions can yield disastrous results that can lead to the loss of money.

### Characteristics Of Effective Information Research

Several key characteristics are necessary to ensure that a quality information research and collection operation is performed.

#### Accuracy

Information must provide accurate, balanced, complete, and objective information.

#### Timeliness

Information provides current information that can be used to support existing or future operations.

#### Usability

Information should be available in the correct format required for storage, indexing, display and distribution.

#### Completeness

Information presents all necessary information to ensure that the final report is as complete as possible.

#### Precision

Information provides the required level of detail and complexity to satisfy the information needed.

#### Reliability

An evaluation must be performed on the Information to determine if it is trustworthy, uncorrupted, and undistorted.

#### Relevant

The information should provide answers to the questions asked.

#### Tailored

Information should be shared and disseminated in the format requested by the end user. It needs to support and satisfy the specific requirements of the research requirements.

### Phases Of Competitive Information Research

Information Research operations have successive stages that allow the researched information to be refined. This refined information can then be used to provide a quality product to the end user.

#### Planning

- Determine what information is needed.
- Determine which sources of information will be used.

#### Collection

- Designate the process for collecting the required information.

### Processing

- Compile the collected information into a usable format for analysis.

### Evaluation

- Evaluate information products for accuracy, completeness and intelligence information requirements.

### Analysis

- Distill the evaluated information into a product that meets information requirements.

### Production

- Format the information product, so that is readily accessible to the designated end user.

### Distribution

- Distribute the information product to the designated end user.

### Feedback

- Provide a peer-reviewed feedback of the final product. This will review the report for accuracy, completeness and information requirements.



[all-free-download.com/free-vector/download/magnifying\\_glass\\_clip\\_art\\_23181.html](http://all-free-download.com/free-vector/download/magnifying_glass_clip_art_23181.html)

## **We Are Your Information Resource**

Are you looking for specialized data?

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Do you need help finding the right information?

## **We Can Help You Find The Information That You Need**

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## Radio Program Cycles Derek Bullard

Dayparting is the practice of dividing the broadcast day into several parts, with each section of the day having unique types of radio or television program.

Daypart segments typically consist of the following time blocks:

- \* Morning.
- \* Evening.
- \* Midday.
- \* Late night.
- \* Afternoon.
- \* Early morning.

If you are broadcasting to a global audience, you can designate different time blocks for specific geographic regions or various types of entertainment.

Things to consider when programming content for daypart time blocks.

Each daypart time block should have consistent elements that blend smoothly together

These elements consist of:

- \* Program content.
- \* Advertising.
- \* Sweepers.

You should transition smoothly between each daypart time block.

Transitioning between different types of programming content takes a bit of finesse but it can be done with style.

Different times of the day typically dictate the tempo of programming presented. This is most notable in stations that offer music.

- \* Upbeat and high tempo for the morning.
- \* Level off in the afternoon.
- \* Gradual down tempo for the afternoon.
- \* Smooth and easy for the night time.

News and information stations use a similar concept for their programming.

- \* Short and concise news programming in the early morning.
- \* Detailed programming and content in the late morning, such as talk radio.
- \* Expanded local programming and content in the early afternoon.
- \* Detailed programming and content in the late afternoon, such as news shows.
- \* Entertainment and educational programming in the evening.

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### Internet Radio Royalty Licensing John Small

Here is a list of national agencies for various countries that are responsible for collecting music royalty fees for Internet broadcasting.

Country	Website
Australia	<a href="http://www.pcca.com.au/music-users-/webcastlicensing/">www.pcca.com.au/music-users-/webcastlicensing/</a>
Belgium	<a href="http://www.uradex.be">www.uradex.be</a>
Canada	<a href="http://www.streamlicensing.comhttp://www.koda.dk/eng/music-users/">www.streamlicensing.comhttp://www.koda.dk/eng/music-users/</a>
Denmark	<a href="http://www.koda.dk/eng/music-users/">www.koda.dk/eng/music-users/</a>
Finland	<a href="http://www.teosto.fi/en/licensing">www.teosto.fi/en/licensing</a>
France	<a href="http://www.adami.fr">www.adami.fr</a>
Germany	<a href="http://www.gema.de">www.gema.de</a>
Holland	<a href="http://www.mijnlicentie.nl">www.mijnlicentie.nl</a>
Ireland	<a href="http://www.ppimusic.ie/using-music/using-music-on-the-internet">www.ppimusic.ie/using-music/using-music-on-the-internet</a>
Italy	<a href="http://www.imaie.it">www.imaie.it</a>
Japan	<a href="http://www.jasrac.or.jp/ejhp/users/index.html">www.jasrac.or.jp/ejhp/users/index.html</a>
Norway	<a href="http://www.gramo.no">www.gramo.no</a>
Portugal	<a href="http://www.gdaie.pt">www.gdaie.pt</a>
Spain	<a href="http://www.aie.es">www.aie.es</a>
Sweden	<a href="http://www.sami.se">www.sami.se</a>
Switzerland	<a href="http://www.swissperform.ch">www.swissperform.ch</a>
UK	<a href="http://www.ppluk.com/I-Play-Music/Radio-Broadcasting/Radio-types/Online-radio-and-services">www.ppluk.com/I-Play-Music/Radio-Broadcasting/Radio-types/Online-radio-and-services</a>
USA	<a href="http://www.streamlicensing.com">www.streamlicensing.com</a>

#### Royalty Payment Agencies

Christian Genre [us.ccli.com](http://us.ccli.com)

Christian Genre [www.christiancopyrightsolutions.com](http://www.christiancopyrightsolutions.com)

The following companies can assist your Internet radio station with the compliance requirements for royalty payments in the United States and Canada.

The Stream Licensing company: [www.streamlicensing.com](http://www.streamlicensing.com)

ProNet Licensing: [www.pronetlicensing.com](http://www.pronetlicensing.com)



# Advertise With The Media Streaming Journal

## Full Page Advertising



Choose from 3 different sizes to advertise your business or service.

Contact the advertising staff at [advertising@radiosolution.info](mailto:advertising@radiosolution.info) for advertising information.

## Half Page Advertising



## Quarter Page Advertising





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Providing advisory for some of the world's leading firms in e-commerce, investments and media technology

## Competing Or Leading? RC Williams

Happy Holidays to all of you!

Each month as I write these pieces, I am reminded of how fortunate I am to be able to do so.

We live in a time where technology allows us to share information with the world in an instant. You no longer have to “compete” with large media outlets - you now have the means for them to follow your lead.

Tackle tough stories, dig deep, deliver facts. People want the truth. It seems that larger media outlets are so focused on getting you to click on something (aka “click bait”) or getting you to look at those weird stories towards the bottom (that company is called Outbrain, also in the click bait business.)

This piece that I wrote back in July captures the essence of that message: Multimedia is for everyone, not just big business.

The Future – Heavy On Substance, Light On Form

I am a bit of a rebel when it comes to standards around how people communicate.

In years past, traditional media sources dominated the day. There was a mixed air of authenticity + arrogance when information was shared with the masses.

A moment of transparency: I walked out of Journalism School years ago. I really thought I wanted to be a journalist in the early 90's, but I constantly argued with my professor, in front of the class, about everything.

I could not understand why journalists did not simply write in the manner that people actually communicated.

Eventually, my professor and I agreed that I would be better suited for something else. Sadly, we did it in front of the entire class in an intense exchange. My last words to him on that day in 1992 were:

“Technology will make you and other journalists who do not get it obsolete inside of 20 years!”

What has happened since that time is considerably more than I expected?

Technology and instant information rule the day. When news breaks, more people go to a service that only allows 140 characters than major TV and Radio networks.

Traditional media networks struggle to keep up in a world that does not seem to care about fluff - they want the story, on location, in real time as it happens. Forget the news set and makeup, give me the goods and be for real.

Anyone can become a citizen journalist with nothing more than a mobile device and a signal. Bloggers and information aggregators have more traffic than CNN, ABC, NBC and CBS. Google has created a news

lab in an effort make things easier ([https://newslab.withgoogle.com/.](https://newslab.withgoogle.com/))

As we look at both the present and the future, it is the substance of the information, not the form in which it is presented - that is most important. Something to ponder.

I hope you found this piece helpful. If you did and The Give Company can help you with advisory, please email me.

RC Williams is Co-Founder of The Give Company, providing advisory for some of the world's leading firms in e-commerce, investments and media technology.

For more information, please visit [www.TheGive.Company](http://www.TheGive.Company) or email him [rc@thegive.com](mailto:rc@thegive.com).



[commons.wikimedia.org/wiki/File:RCA\\_Color\\_Broadcast\\_Camera\\_TK-41C\\_-\\_2.jpg](https://commons.wikimedia.org/wiki/File:RCA_Color_Broadcast_Camera_TK-41C_-_2.jpg)

## The Magic Of FFMpeg David Childers

FFMpeg is a collection of software libraries that were created to easily manipulate multimedia content. It is open source and available for the Unix, Linux, Macintosh and Windows operating system.

Here are a few commands that you can use with video files.

### Remove Section Of Video

```
ffmpeg -ss 00:00:01 -t 00:00:15 -i "video1.avi" -acodec copy -vcodec copy "edited-video1.avi"
```

The first time listed is when the save will **start**. The second time is when the save will **end**. Time is entered in **Hours : Minutes : Seconds**.

This FFMpeg command example will save the video from the first second up to the 15th second. The "edited" file will be saved as a different file. The original files will not be overwritten. You can re-cut the file as needed.

Adjust the editing time according to your requirements.

The transcoding will be completely lossless and done in very short time.

### Multimedia File Analyzer

ffprobe can be used to retrieve various types of information about multimedia files.

Some of this information includes:

(General information)  
Duration of file.

(Video)  
Encoding bitrate, video codec, frame size, frame rate.

(Audio)  
Audio codec, sample rate, stereo or mono, encoding bitrate.

Command: **ffprobe video.mp4**

### Fade Out Script

Bash script to automatically fade out (audio + video) the end of a video file automatically.

FadeOutMp4.sh

---

```
#!/bin/bash
```

```
# Audio + vidéo fade out at the end of mp4 files
```

```
# 2015-09-09 19:07:17.0 +0200 / Gilles Quenot
```

```
# length of the fade out  
fade_duration=2 # seconds
```



```

if [[ ! $2 ]]; then
    cat<<EOF
Usage:
  ${0##*/} <input mp4> <output mp4>
EOF
    exit 1
fi

for x in bc awk ffprobe ffmpeg; do
    if ! type &>/dev/null $x; then
        echo >&2 "$x should be installed"
        ((err++))
    fi
done

((err > 0)) && exit 1

duration=$(ffprobe -select_streams v -show_streams "$1" 2>/dev/null |
    awk -F= '$1 == "duration"{print $2}')
final_cut=$(bc -l <<< "$duration - $fade_duration")
ffmpeg -i "$1" \
    -filter:v "fade=out:st=$final_cut:d=$fade_duration" \
    -af "afade=t=out:st=$final_cut:d=$fade_duration" \
    -c:v libx264 -crf 22 -preset veryfast -strict -2 "$2"

```

Command : `./FadeOutMp4.sh <input mp4> <output mp4>`

<http://superuser.com/questions/386065/is-there-a-way-to-add-a-fade-to-black-effect-to-a-video-from-the-command-line>

### Insert Text Into Video With Drawtext

Insert the drawtext command between the video input and the codec, format or output command.

### Automatically Set Text Location In The Center Of The Video Frame

```

ffmpeg -i original.video.mp4 -vf
drawtext=fontfile=/usr/share/fonts/truetype/font.ttf:fontsize=30:fontcolor=red:text='hello
world':x=(w-text_w)/2:y=(h-text_h-line_h)/2" text.video.mp4

```

original.video.mp4	Name and format of video to be embedded with text.
fontfile=/usr/share/fonts/truetype/font.ttf	Location and specific font to be used for the text.
fontsize=30	Size of font to be used for the text.
fontcolor=red	Color of font to be used for the text.
text='hello world'	Text to be used in the embed.
x=(w-text_w)/2:y=(h-text_h-line_h)/2	Text is centered vertically and horizontally in the video.
text.video.mp4	Output name and format of text embedded video

## Manually Set Text Location In The Center Of The Video Frame

```
ffmpeg -i original.video.mp4 -vf drawtext="fontfile=/usr/share/fonts/truetype/font.ttf:  
text='hello world':fontsize=30:fontcolor=red:x=100:y=100" with_text3.mp4
```

original.video.mp4	Name and format of video to be embedded with text.
fontfile=/usr/share/fonts/truetype/font.ttf	Location and specific font to be used for the text.
text='hello world'	Text to be used in the embed.
fontsize=30	Size of font to be used for the text.
fontcolor=red	Color of font to be used for the text.
x=100:y=100	Position text 100 pixels to the left and 100 pixels down. (Originating from the top left corner.)
text.video.mp4	Output name and format of text embedded video

## Specify A Specific Time For The Drawtext Filter To Start And Stop

```
ffmpeg -i original.video.mp4 -vf  
drawtext="enable='between(t,15,30)':fontfile=/usr/share/fonts/truetype/font.ttf:  
text='hello world':fontsize=30:fontcolor=red:x=100:y=100" with_text3.mp4
```

original.video.mp4	Name and format of video to be embedded with text.
enable='between(t,15,30)	Start text embed at 15 seconds and end at 30 seconds.
fontfile=/usr/share/fonts/truetype/font.ttf	Location and specific font to be used for the text.
text='hello world'	Text to be used in the embed.
fontsize=30	Size of font to be used for the text.
fontcolor=red	Color of font to be used for the text.
x=100:y=100	Position text 100 pixels to the left and 100 pixels down. (Originating from the top left corner.)
text.video.mp4	Output name and format of text embedded video

## Embed Text Into Video

Box is used to draw a box around text using the background color.

```
ffmpeg -i original.video.mp4 -vf  
drawtext="enable='between(t,15,30)':fontfile=/usr/share/fonts/truetype/font.ttf:text='hello  
world':fontsize=30:box=1:fontcolor=red:x=100:y=100" text.video.mp4
```

original.video.mp4	Name and format of video to be embedded with text.
enable='between(t,15,30)	Start text embed at 15 seconds and end at 30 seconds.
fontfile=/usr/share/fonts/truetype/font.ttf	Location and specific font to be used for the text.

text='hello world'	Text to be used in the embed.
fontsize=30	Size of font to be used for the text.
box=1	Creates a colored area around text. (Default color of area is white.)
fontcolor=red	Color of font to be used for the text.
x=100:y=100	Position text 100 pixels to the left and 100 pixels down. (Originating from the top left corner.)
text.video.mp4	Output name and format of text embedded video

### **boxcolor=blue**

The color to be used for drawing a box around the text. For the syntax of this option, check the "Color" section in the ffmpeg-utils manual.

<https://ffmpeg.org/ffmpeg-utils.html#Color>

The default value of boxcolor is "white".

<https://ffmpeg.org/ffmpeg-filters.html#drawtext-1>

### Additional Fonts For Drawtext

More fonts can be downloaded here: <http://fonts.debian.net/>

More Debian Linux distro fonts can be added using command line:

\$ apt-get install ttf-dejavu	\$ apt-get install ttf-mscorefonts-installer
\$ apt-get install fonts-freefont-ttf	\$ apt-get install ttf-bitstream-vera
\$ apt-get install texlive-fonts-extra	\$ apt-get install ttf-liberation

Fonts are installed in the following system directory for Linux users: **/usr/share/fonts/**

### Embedding Images To Video

The overlay command is used to insert images into video using FFmpeg.

Insert the overlay command between the video input and the codec, format or output command.

### Simple Image Overlay

ffmpeg -i **your\_video.mp4** -i **your\_image.jpg** -filter\_complex "[0:v][1:v] **overlay=25:25**" **overlay.video.mp4**

your\_video.mp4                      Name of the video and video format.

your\_image.jpg                      Name of the image to be embedded and image format.

overlay=25:25                    Position image 25 pixels to the left and 25 pixels down.  
(Originating from the top left corner.)

overlay.video.mp4                Name of the output embedded video and video format.

### Timed Image Overlay

```
ffmpeg -i your_video.mp4 -i your_image.jpg -filter_complex \  
"[0:v][1:v] overlay=10:10:enable='between(t,10,25)'" overlay.video.mp4
```

your\_video.mp4                    Name of the video and video format.

your\_image.jpg                    Name of the image to be embedded and image format.

overlay=10:10                    Position image 10 pixels to the left and 10 pixels down.  
(Originating from the top left corner.)

enable='between(t,10,25)        Image overlaid at 10 seconds and discontinued at 25 seconds.

overlay.video.mp4                Name of the output embedded video and video format.

<http://superuser.com/questions/713498/how-to-show-overlay-image-in-a-certain-time-span-with-ffmpeg>

### **Please Note**

Do not use an image that will exceed the frame size or do not place an image in a location that will exceed the frame size.

### Resize a Video File

The -s command is used for resizing a video file.

```
ffmpeg -i original_video.mp4 -s 640x480 -c:a copy edited_video.mp4
```

Original\_video.mp4 - Video to be resized.

640x480 - Pixel size you want video to be resized to.

edited\_video.mp4 - Name of video after being resized to.

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## The Importance Of Meta Data For Multimedia Content

### Derek Bullard

Search engines use web page information, metadata and textual content for classification. Algorithms are used by the search engines to collect, analyze and process this data to determine a web pages category and ranking.

Search engines cannot currently analyze multimedia content for the purpose of categorizing and ranking. They rely on the use of "keywords" attached to multimedia content to aid in the processing and analyzing of the multimedia content.

The role of "keywords" together with multimedia is important, as it is used to identify what the content is or what the content represents. It can also be used to associate content with webpages or websites.

Here is an example of "keyword" use with multimedia.

Image:

Miles Davis.

Potential keywords that could be used:

Miles Davis, Classic Jazz, Trumpeter, Fusion Jazz,  
Your radio or television station name \*.  
(FusionJazzRadio.com)

[upload.wikimedia.org/wikipedia/commons/9/92/Howard\\_McGhee  
%2C\\_Brick\\_Fleagle\\_and\\_Miles\\_Davis%2C\\_ca\\_September\\_1947\\_%28Gottlieb%29.jpg](http://upload.wikimedia.org/wikipedia/commons/9/92/Howard_McGhee_%2C_Brick_Fleagle_and_Miles_Davis%2C_ca_September_1947_%28Gottlieb%29.jpg)



There are several important considerations for multimedia keyword use:

- KISS (Keep It Simple Stupid)
- Focus the "keywords" on the multimedia content.
- \* Associate the "keywords" with your specific radio / television station.
- Use "keywords" that are unique, but relevant to the multimedia content.
- "Keywords" should also be used for all multimedia content.  
(This includes audio, video, and graphic images.)
- Use four to five "keywords" per each multimedia item.  
(Content could be penalized if excessive "keywords" are used.)
- A minimal but concise "keyword" or "alt tag" should be used with all graphic images.  
(HTML example of image alt tag placement: )