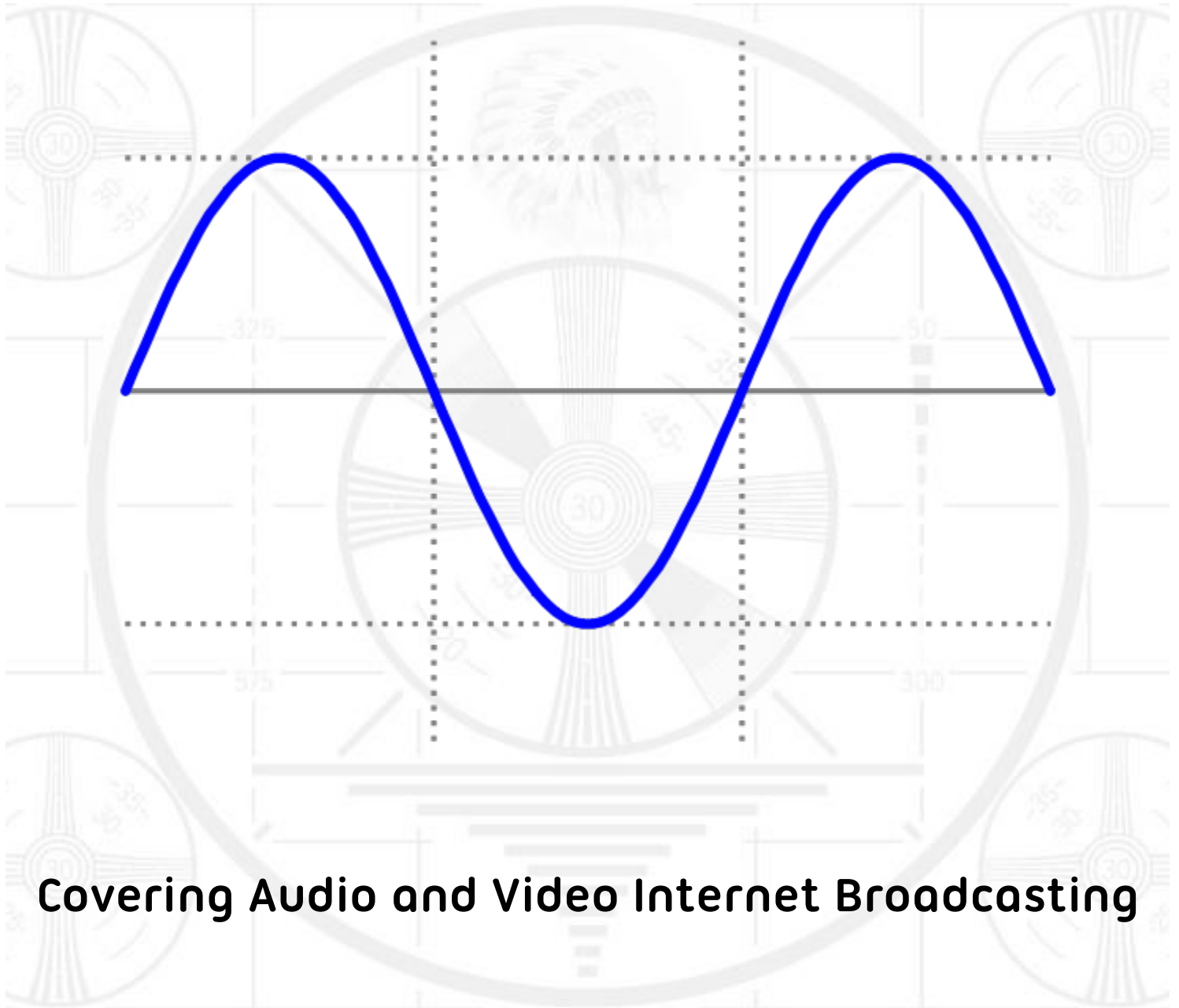


# The Media Streaming Journal

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Second Edition - June 2015

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Covering Audio and Video Internet Broadcasting

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### Welcome to the Second edition of The Media Streaming Journal

I believe that Open Source software will continue to grow in importance for the business, and broadcast community. The casual home computer user will also drive the growth of this market as well. There is a small group of people that downplay the quality and usefulness of open source software; however, I would not let their squeaks of unhappiness dissuade you from using Open Source software. The Internet was developed with and continues to use open source software as one of the driving forces behind it.

Open Source software is a community effort that envisions a dream, plans that dreams and makes that dream happen. A monetary reward does not drive open Source developers; they are driven in their quest to make their project the very best.

I am including an essential guide for the Debian Linux distribution in this edition. This will provide a quick reference for the experienced Linux user and a casual guide for the up and coming Linux guru. We will also cover some software that will benefit both the audio and video producers as well.

Internet broadcasting has grown from a small group of computer engineers and multimedia experts into a global phenomena. It is important to continue to grow this technological field and share the wealth of information that is available.

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

# 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).

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David Childers

Linux Multimedia Software  
Robert Andrews

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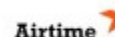
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## Putting Personality Back on the Radio

### John Small

Owner of Sunny Radio and founder of  
[www.CloudcastRadio.com](http://www.CloudcastRadio.com)



When I started in radio back in the 1990's, it was such a fun business. Many people were involved in making the stations FUN and EXCITING places. You wanted to listen because you would feel like you MISSED OUT if you did not tune in one day. Somewhere along the way the industry began to change into something different. Companies began buying up all of the little stations and lumping everyone together. This created an environment that was way different for many. Some of the most talented (and highest paid) people were let go during the "downsizing" of our industry.

People were replaced with "satellite" formats. Some stations began "voice-tracking" shifts. I watched as the industry I love turned into something completely different. By 2005, I worked for a company that owned all five radio station in the community. It was an interesting thing to own all of the radio stations. People did not REALLY have a choice... if they wanted to listen to the radio... they had to listen to us... or pull something in from out of town. I can honestly say that I do not think it made us better... I think it made us complacent.

It was not what I wanted to do with the rest of my life, so I quit and started my own company. We moved to a different state to be closer to family, and I began writing and recording radio ads for clients all over the US and Canada. I made a nice living, but I missed radio. I reached out to a group that owned a little AM Daytimer station. After three years of pestering, they decided to sell the station to us. We added an FM Translator and began broadcasting 80's music to Sioux Falls, SD

### Then Along Comes Internet Radio

As the internet began to grow in popularity and the technology began to catch up with the imaginations of mankind, it became possible for ANYONE to broadcast... not just the media companies. For the first time in history, you could put a radio station together on a slim budget and get it out to people all over the world. I started broadcasting online ([www.SunnyRadio.com](http://www.SunnyRadio.com)) while I was waiting for the FCC to approve our radio station purchase. This was the very best thing that could have happened! I learned a TON about our listeners by watching the statistics. I could see when people were listening and when they were tuning out. I adjusted things to make the station the very best it could be.

Along the way, we added another station in Sioux City, IA. This brought on a new challenge. How do we get our content on that station too?! We came up with a plan that involved "broadcasting from the cloud" and began our own little syndication system that we call [www.CloudcastRadio.com](http://www.CloudcastRadio.com). We now provide shows for other station too, both online stations and AM & FM stations. We are excited to provide the fun shows that people like here to other stations to allow them have some personality too!

**If you are starting an online radio station... remember this... MAKE IT FUN and people will follow!**

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Please contact a member of the staff If you have any questions or comments about The Media Streaming Journal.

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### **Common Protocols Used for Internet Broadcasting** **David Childers**

SHOUTcast was developed by Justin Frankel and is a modification of HTTP, which is used to distribute web page data over the Internet. Shoutcast uses special meta tag data that is placed within HTTP communications headers. TCP is used to transport the data.

Icecast was developed by the Xiph open media organization and is a modification of HTTP, which is used to distribute web page data over the Internet. Icecast is similar to Shoutcast and uses special meta tag data that is placed within HTTP communications headers. TCP is used to transport the data.

Hyper Text Transport Protocol (HTTP) was developed by the Internet Engineering Task Force and provides a definitive architecture for data communications between a client and server. TCP is used to transport the data.

Real Time Streaming Protocol (RTSP) was developed by the Internet Engineering Task Force and functions similarly to HTTP. RTSP differs from regular HTTP content delivery by requiring a permanent data connection between clients that are exchanging data. RTSP uses a message ID to monitor each data connection between clients so that no permanent TCP connection is required. RTSP also allows users to control the basic functions of a media server; such as starting, pausing or stopping the delivery of the content. TCP is used to transport the data.

Real Time Transport Protocol (RTP) was developed by the Internet Engineering Task Force. RTP provides identification and sequential ordering of data bits as well as monitoring the delivery of multimedia content. RTP is less susceptible to the loss of data being sent via computer networks, but it is very sensitive to data delay that can be caused by network irregularities. RTP does not provide the ability to guarantee content delivery. UDP is used to transport the data.

Real Data Transport (RDT) was developed by RealNetworks as a proprietary alternative to RTP. RDT is commonly used in conjunction with a control protocol such as RTSP. UDP is used to transport the data.

Microsoft Media Server (MMSH) was developed by Microsoft as a proprietary protocol that was used with the Windows Media Server. MMSH was replaced by RTSP but is still used as a fall back alternative. Either TCP or UDP can be used to transport the multimedia data.

HTTP Live Streaming (HLS) was developed by Apple as an adaptive content streaming protocol. It uses a variation of HTTP for content delivery. The concept of HLS works by splitting the multimedia stream into a sequence of individual file chunks that are delivered via HTTP. Each delivered file contains one small segment of the overall multimedia stream.

Transport Control Protocol (TCP) was developed by the Defense Advanced Research Projects Administration and is one of the primary methods for controlling data exchange over computer networks. TCP guarantees the reliability and order of data by requiring acknowledgment for receiving data from clients before more is sent. The use of TCP will result in large communications overhead.

User Datagram Protocol (UDP) was developed by David Reed and is one of the primary methods for controlling data exchange over computer networks. UDP does not require verification of data, which does not provide guaranteed delivery of the data or proper ordering of the data. This greatly reduces overall communications overhead. It provides a greater data delivery speed and is much more efficient.

## Jargon Generator

Randomly select a word from the first column and combine it with a randomly selected word from the second column. The results will impart you with awesome geek powers!

actives  
analog transmission  
aspect ratio conversion  
average quarter hour  
back timing  
bed  
break filler  
bumper  
closed captioning  
countdown  
conversion  
coverage  
cue burn  
cume  
day parting  
dead air  
drive time  
digital  
encryption  
feedback  
format clock  
frames per second  
front sell  
gain  
high definition television  
identification  
image liner  
jingle  
letter box  
line standard  
live  
log  
master clock  
miscue  
news crawl  
optical  
outside broadcast  
phase alternating line  
pillar box  
play list  
postage stamp  
producer  
public service announcement  
ramp  
simulcast  
sound on tape  
spot  
sting  
tape sync  
teaser  
up conversion  
video jockey  
video tape recorder  
zoom

accumulator  
accelerated graphics port  
analog  
back up  
bitmap  
bus  
compiler  
control panel  
core memory  
daemon  
database  
desktop  
ethernet  
expansion slot  
express card  
file allocation table  
file system  
flash memory  
gigabyte  
graphics  
hard drive  
hexadecimal  
icon  
inkjet  
Java  
joystick  
kernel  
keyboard  
link  
localhost  
media  
menu  
monitor  
nanosecond  
node  
operating system  
output device  
path  
program  
read only memory  
refresh  
router  
screenshot  
server  
software  
surge suppressor  
tape drive  
task bar  
terabyte  
user interface  
utility  
video card  
virus  
virtual memory

## Funding Your Passion

### How to Decide How Much Money You Need For Your Online Radio Station Part 1 of 4 - Hobbyist Music Stations

Gary M. Ayd

Launching an online radio station is an exciting and challenging endeavor. People choose to take it on for a list of reasons ranging from personal to professional and even religious or spiritual. Whatever your reason its good to do a bit of research prior to jumping in with both feet.

In this article, the first of a 4-part series I will run through a sampling of the kinds of questions you should be asking yourself and others when deciding to launch a station.

We will then apply the answers to these questions to what is available on the market place for the 4-broad types of stations that exist (**hobbyist music, commercial music, hobbyist talk and commercial talk**) to determine cost. Keep in mind that this list is not all-inclusive, however it should get you started.

#### What is the Purpose

The first and most important decision you must make is deciding what the purpose or goal of the station is. As Alan Lakein once said, "failing to plan is planning to fail." Online radio is no exception to this well stated truism. Before you do anything else have a crystal clear vision of what you want out of the station. Below is a list of some questions to ask to answer this larger query

- Will you play just music or mix announcements in?
- Is it a place to play the music of your favorite local bands or more mainstream tunes?
- Do you wish to make money out of it?
- How much time and personal resource are you planning to put into it?

The answers to these are perhaps other similar questions will lead you to determining your stations purpose or mission. Once that is in place now we can start attacking the specifics of financing your station.

For the purposes of this article I will focus our attention on hobbyist music stations, as they are the most popular and numerous it makes sense to lead our series with them.

#### Hobbyist Music Station

##### **Gear Needed**

Falling either in the middle or at the cheap end of the expense chain for our examples, the specs of what is required by a station of this type (like the other examples) does vary some based on goals and desires.

Lets presume you just enjoy building playlists and simply want to broadcast the songs you already have on iTunes to a few of your friends.

Doing this would require little gear beyond a computer, a subscription to a free or radically inexpensive streaming provider and perhaps a USB microphone if you'd like to make a few announcements. If you want to get really fancy you could buy a cheap USB mixer, but again that is way more than needed for this level. Acquiring this type of equipment can be done almost anywhere, but I'd suggest [www.adorama.com](http://www.adorama.com) or [www.bswusa.com](http://www.bswusa.com).

You should also look into whether or not you would be required to pay royalties, although there is likely a way to work around that given the private nature of how the music is being used. In addition many streaming providers now cover those fees as part of your subscription making it even easier. A few good ones to checkout are [www.radiojar.com](http://www.radiojar.com) and [www.wavestreaming.com](http://www.wavestreaming.com).



### **Time Needed**

Setting up a playlist and then playing it out would require almost no time at all once the playlist is set. You may wish to make a few changes now and then to the list, but beyond that, it truly is set it and forget it.

### **Personnel Needed**

You yourself and no one else to do something like this. You can always have your friends voice things if you want, but you can do it all in almost no time with no help.

### **Approximate Money Needed**

Somewhere between 0-\$300 should get the job done.

A station like this will likely not generate much money, in fact it may cost you what it takes to operate it month-after-month, however, it will not take much time and can be a fun way to bond with friends or family members while also showing off your creative side.

Next month we will focus on commercial music stations and how they differ in both approach and expense.

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### **Fun Facts**

#### The first two Internet radio stations

Student radio station WXYC at the University of North Carolina at Chapel Hill started broadcasting on November 7, 1994, using Cornell University CU-SeeMe software.

Student radio station WREK at the Georgia Institute of Technology began test broadcasts on the same date but did not publicize this till later. WREK used Unix based software created by John Selbie.

#### The first four live video concerts on the Internet

- Rolling Stones from the Cotton Bowl in Dallas Texas in November of 1994. (Multicast Backbone)
- Sky Cries Mary from Starwave in Seattle Washington in November of 1994. (Multicast Backbone)
- Deth Specula from the University of California in Santa Cruz in August of 1994. (Multicast Backbone)
- Severe Tire Damage from Xerox PARC at Palo Alto, California in June of 1993. (Multicast Backbone)

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## Half Page Advertising



## Quarter Page Advertising



# Understanding Your Station

## David Childers

"Know thyself" is an Ancient Greek adage that is essential to understanding the complexities of your station and your competition. A comprehensive knowledge of your station provides the gold standard for establishing a baseline for what information is needed to understand your station competition and your overall business environment.

Making general assumptions or guessing cannot provide a reliable standard necessary for determining what information is required. Using limited research resources or limiting your perspective can also provide a distorted assessment of information.

It is vital to collect information without regard to bias, as business or market trends are not subject to personal biases of station management or the competition.

### Identity

- Station name.
- Station logo.
- Station mascot.
- Station slogan.
- Keyword usage.
- Meta tag usage.

### Business Model

- Paid Subscription.
- Advertising Supported.

### Distribution methods

- Shoutcast.
- Icecast.
- Adobe Flash.
- Microsoft Media.
- Other.

### Web Technology

- Java.
- HTML.
- Other.

### Website Review

- Identify strengths.
- Identify weaknesses.

### Social Media Review

- Identify strengths.
- Identify weaknesses.

### Audience Market

- Genre.
- Audience specifics.
- \* Age.
- \* Location.
- \* Language.

### Trend Specifications

- Daily.
- Weekly.
- Monthly.
- Quarterly.
- Yearly.

### Audience Dynamics

- Website search engine rank placement.
- Relative distribution rank placement.
- Other social media outlets.
- Website back links.

### Audience Reach

- Web site and streaming.
- \* Geographic origin
- \* Device used to access content.
- \* Language of user.
- \* Audience / visitor trends.
- Website referral.
- Search engine referral.
- Pages accessed.
- Average time on pages.
- Entry page.
- Exit page.



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## **Types Of Broadcast Imaging Ian Pinnell**

There are several categories of broadcast imaging packages that can be created.

These categories are:

### Sweeper

These are played in between songs and are used to remind the audience whom they are listening to or watching. They are also used to brand and build the station's image within the broadcast. Sweepers are usually between 5 to 10 seconds in length.

### Teaser

These are designed to "tease" or give a "taste" of music or programs that will come in the near future. They are used to give the listener a reason to continue listening or watching through commercial breaks.

### Promotion (Promo)

These define the character of the station and are designed to sell the station to the audience. They are the most important audio production created by the broadcast station.

### Identification (ID)

These are station identifications that inform the audience whom they are listening to or watching. ID's are usually 3 to 5 seconds in length.

### Powershot (Station Tag attached to the beginning of a song)

These normally evolve around a full-length piece of music and station ID. They are used to highlight the style of music a particular station plays. They may include an "artist drop," which is an introduction spoken by that Artist. The tag is generally the artist introducing themselves and their music. The drop may also include a reference to the station. Both methods are an excellent way to focus the listener on the station style, and brand.

It is crucial to remember the listening audience when using station imaging. Station imaging packages should be used sparingly and with attention to detail. Constantly bombarding the audience with these packages can overwhelm them. Do not fall into the train of thought that the broadcast imaging packages need to be placed on a heavy play schedule. Use imaging packages sparingly throughout the broadcast day. Know when it is right to play certain types of imaging packages; you do not want something heavy early in the morning, nor do you want something soothing for a high energy show. It is important to make sure that the imaging packages are in a practical and fluid rotation, where and when possible.

## Unofficial M3U and PLS Specification Sawg

M3U and PLS media files are used by media player software to direct the application to a multimedia stream. They can be used to with various streaming media servers and can be used with most modern media player applications as well.

The M3U media file format was originally developed for Icecast.

The PLS media file format was originally developed for Shoutcast.

### Simple M3U

sample.m3u

code:

```
http://www.site.com:8000/listen.pls
```

### Extended PLS (PLSv2)

Same playlist from the M3U section in PLS format.

sample.pls

code:

```
[playlist]
```

```
File1=http://www.site.com:8000/listen.pls
```

```
Title1=My Cool Stream
```

```
Length1=-1
```

```
NumberOfEntries=1
```

```
Version=2
```

Explanation of entries:

[playlist]: Signifies that this is a playlist. This is case sensitive.

File#=: Location of the file in any of the formats described above. This is also case sensitive. Also the # sign after "File" signifies what file number it is. The first file in the playlist is "File1", the second is "File2" and so on.

Title#=: Title to display. This is usually the title read from the file name or ID3 tags. Like the other fields, this is case sensitive. This also can be the name of a stream. Like "File#" the pound sign (#) is replaced by the entry number that is in the playlist.

Length#=": Length in seconds, this is also case sensitive. On the last entry there is a negative one, this is usually seen on streams, it tells the program to ignore the time entry. Like "File#" the pound sign (#) is replaced by the entry number that is in the playlist.

NumberOfEntries=#: The total number of entries in the playlist. This should match the last number on the "File#", "Title#", and "Length#" fields. Also case sensitive.

Version=2: This required entry near the bottom tells the player what format the PLS is in. Older versions of the PLS format did not include this. Like everything else, it is case sensitive.

## Con Pricing Mechanism

### Understanding the Dangers of Cost per Thousand Advertising and How to Avoid Them

Gary M. Ayd

Cost per Thousand, (CPM) is a broad reaching formula that unilaterally determines how much value should be paid to a station or media property based on audience size. Generally CPM based services will pay a station or program around \$2 for every 1000 listeners. Not hard to figure out that you need a small army of listeners to make it profitable. Also keep in mind that you only get paid that \$2 per 1k listeners when you run commercials, so unless you plan on cashing in once on your 1k or more listenership you best keep those to a strategic minimum or risk losing your audience.

This is the problem facing so many internet radio operators you need to run more commercials to make money but if you do you lose your audience and can't get paid. Studies have also shown that internet audiences are far less patient with heavy spot loads than broadcast audiences are. In general limiting commercials to 2-minute stop sets 4x an hour at most is a really good idea.

Another danger of CPM beyond the no win balancing act between audience building and spot load it puts you in, is less tangible but just as real and dangerous to a station that wishes to become a viable and profitable business; lack of control.

If there is one thing a station owner **must** control it's the price at which he/she sells inventory. With CPM you have someone else, or worse yet a computer program telling you how much you can sell your inventory for.

Relinquishing this amount of control to the CPM model not only costs you money, but also essentially makes you an employee of the CPM model because it is telling you what you're worth instead of you deciding what you're worth and finding a way to earn that amount. In essence it takes away the very reason most of us go into business for ourselves.

So now the question is how to avoid it? How do we do it our way instead of just the way it's done? Just do it!

Making this decision means at least until your station is very large that you are deciding the following:

1. You will not be selling to any client that uses an agency as they buy only on CPM because agencies are dumb and uncreative (paradox I know).
2. Will be selling almost exclusively local direct. Yes this means more work and labor for you, but it also means you can set your prices and reap more of the rewards. For example don't you think you can sell a local pizza shop on \$200 a month for 3-5 spots per day if you have 200-500 listeners to your show? Of course you could CPM would pay you less than \$2 for that same thing!
3. You will be manually inserting ads into your automation program.

If you can agree to do those three things for yourself you can get off the CPM treadmill and begin making real money.

## **How to Overcome a Creative Block**

### **Debby Peetam**

#### Creativity versus creative block in business

As a small business owner or entrepreneur, you are usually directly involved in the day to day running of your business. The burden of making key decisions and initiating important procedures lies squarely on shoulders. This is especially true for artists, painters, graphics designers, music/radio DJs, photographers; and also, those entrepreneurs who run service oriented businesses like restaurants, wedding/events planning, nutritional counseling, or life improvement coaching. The onus is on you to steer your business towards the desired direction or goal. For your business to stand out in today's highly competitive environment, you need to add a touch of creativity to set you apart, which will help you to attract and maintain the attention of your customers for as long as they need the services you offer.

As an entrepreneur, you need to always be able to identify and make use of new and imaginative ideas that can help your business provide better service(s) to your clients. In fact, your creativity determines how your business takes off; and also how it is sustained through the various stages of growth and development/expansion. Unfortunately, there are times when; for one reason or the other, your flow of ideas or thoughts is interrupted. This happens to us all the time, and is aptly referred to as a creative block. Creative blocks; which can last for hours, days, weeks, or even months, are not only frustrating, but can also have a crippling effect on the continued sustenance of your business.

#### Types of creative block

There are no defined rules for determining the various types of creative block to which we are usually susceptible. For the purposes of this discourse however, we'll identify 5 broad categories of creative block.

Mental Block: this is probably the most common type of creative block. It usually occurs when we form a habit of approaching issues or thinking in one particular pattern. When you fail or refuse to view things from different perspectives, you may end up being entrapped by your own way of thinking. The end result is that you tend to become stymied by minor obstacles which you may otherwise, have overcome easily.

Perfectionism block: this type of creative block normally affects individuals who like to get everything done to a T whenever they are working on a project. Such people fail to realize that while it is okay for us to strive towards excellence, perfection is more or less a mirage. They end up being their own worst critics.

Procrastination block: as the name implies, this type of creative block mainly affects people who are given to putting off tasks and projects until a future date. This may have an adverse effect on your creativity since situations may arise where you will have many projects piled up at the same time. When such happens, you will end up being overwhelmed by the apparent workload.

Inspiration block: this is sometimes confused with the mental block; and often happens when we are faced with a dearth of ideas. The difference lies in the fact that with inspiration block, we tend to believe that what little ideas we may come up with are not inspiring enough to spur us on to our goals.

Motivation block: this type of creative block usually occurs when we feel that there is no longer adequate motivation; either financial or otherwise, for us to continue with the given project. This often happens when we lose focus due to one distraction or the other. The end result is that those imaginative thought processes which fire our creativity suffers to a large extent.

#### Causes of creative block:

When looking for how to overcome a creative block, the first and most important step to take is to identify the causes of such creative block. Doing so will help you to easily identify the type of creative block that you are bugged down with; and in extension, the most practical approach to tackle it.

Although the list is virtually endless, below are a few of the most common causes of a creative block:

- A lack of believe in one's talents and abilities
- A lack of motivation or a sense of purpose
- An unusual drive for perfection
- Mental drain from excessive use of the creative energy for long stretches of time
- Psychological trauma caused by the death of a loved one or the ending of a relationship
- Absence of financial motivation or support
- Depending on external influences for the inspiration to be creative
- Over-anxiety on the possible outcomes of the project at hand
- Repeated rejection and criticism of one's work
- As an outcome of a protracted illness or medical condition
- An abrupt, inexplicable drying up of ideas (when the well runs dry!!)

#### Useful tips on how to overcome creative block

As creative professionals, the main reason most of us sometimes fail to take our businesses and careers to the desired level is that we often throw in the towel when we feel stymied by a wave of creative block. In fact, a creative block is not a death sentence for our desired goals since they can be overcome. Overcoming one can actually help us to learn new ways of tackling it when it comes up again in the future. Below are a few rules of thumb for tackling creative block.

Take a break: when you find yourself stuck somewhere along the line while working on a creative project, the most practical thing to do is to take a breather. Simply drop the task at hand and relax for a while. Taking a walk or doing some light exercise may help to clear the wool a little.

Make a change of scene: for creative artists, taking yourself completely away from your immediate work environment will surely work wonders. Going to a place with good natural scenery will have a relaxing effect on your mind; which will in turn, help to get your thoughts back on track.

Re-evaluate the situation: when hit by a creative block, you should sit back and re-valuate the situation to help you get a fresh perspective on things. This will help you come up with new ideas that you may hitherto, have overlooked or considered to be trivial. Such new ideas will surely get you started again.

Work backwards: examine all previous steps or actions taken earlier will help you to identify any important aspects that you may have inadvertently skipped earlier on. Doing this may reveal some important links that you could have missed earlier.

Develop a work routine: this approach is especially useful if you are given to procrastination. Having a set routine will help you develop a heightened sense of discipline, which will make it easy for you to push on and overcome the creative block whenever you have one.

Remain calm: whatever else you do, it is important that you maintain your calm while riding the crisis. This is pivotal to your success in overcoming creative blocks. With a calm composure, you will be able to effectively collect your thoughts and trudge on towards your desired goal or objective.

In conclusion, much as many people may want to desire the fact, creative blocks are real and happen to us on a daily basis. Being able to identify and overcome them is an art in itself, which can be learnt. Doing so will make us better at providing quality service to our numerous customers and clients.

If you should ever have any questions, or would like to brainstorm regarding the development of a logo for your radio station, show or DJ services, please do not hesitate to contact me.

[www.bythebee.ca](http://www.bythebee.ca)

[www.instagram.com/bythebee](https://www.instagram.com/bythebee)

info@bythebee.info

[www.facebook.com/bythebee.ca](https://www.facebook.com/bythebee.ca)



## **Selecting A Multimedia Server Host**

### **Derek Bullard**

Finding a reliable and customer orientated streaming provider is crucial for your overall station performance. If your station media stream suffers from poor performance, then your audience will become disenchanted and move on. It is important to find the right host that matches your exact streaming requirements.

A majority of media streaming companies provide quality service; however, there is a small percentage of streaming companies that should be avoided at all costs. Anyone can create or operate a business from any location around the world on the Internet. This allows persons or organizations of questionable character to create and establish a business presence.

- Some providers may be reselling hosting services as a third party.
- Some providers may oversell available bandwidth.
- Some providers may use substandard hosting facilities.
- Some providers just flat out lie about what the services they offer AND can provide.

Here are some tips that will save yourself time, money and frustration when selecting a streaming media host provider:

#### Business Contact Information

Any legitimate company should have their contact information presented on their business website. A single email address should never be considered proper contact information, especially an email address that is hosted on a free email service. Appropriate contact information should include sales or business email addresses, telephone contact information or a physical business address. DO NOT conduct business with companies that do not publish their business contact information.

#### Technical Support Contact Information

**NEVER** pay extra for technical support. A company should provide contact information for technical support, including telephone numbers or email addresses. Companies should provide technical support around the clock, seven days a week. Companies should also be able to have a quick turn around for providing technical support to customer issues.

#### Privacy Policy

It is important for a company to have a privacy policy posted on their website. There are legal and moral considerations on how the company will process, retain and guard your personal information.

#### Refund Policy

A refund policy should be posted on the company website. This will provide detailed procedures if you decide to cancel your service for any reason.

#### Terms Of Service

A terms of service policy should be posted on the company website. This will provide information on the legal requirements that a user must agree to abide by to use the companies service.

#### Free Trial Offer

A stream host should offer a free trial of their services. This is the best way to make certain that they have quality streams and that the server meets your requirements.

#### Buyer Beware

Beware of claims that are used as marketing techniques. Any company can use exaggerated claims

regarding their abilities to entice people to use their services. However, not all claims made by businesses can be delivered as promised.

Companies can exaggerate their streaming server uptime. Look for a company that offers a reliable uptime guarantee and can provide documentation to back that claim up.

Beware of the term “unlimited” resources. Unlimited resources do not exist. The world is finite, and so are hardware and Internet resources. **READ THE FINE PRINT** before you pay money, as companies may have the legal option of terminating your account if they believe you are **ABUSING** their services.

### Ask Questions

It is important to ask questions before making any long term financial commitment.

- What is the customer satisfaction rating?
- How long has the business been in operation?
- Does the business have emergency backup procedures in place in the event of hardware fault?
- Is the company a member of a recognized business association?

Any business or company that refuses to answer questions or provide additional information before a sale should be avoided.

You can find the best stream provider when you do your research, and prevent any headaches ahead of time.

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### **New Wave Radio David Childers**

Internet radio provides a global outlet for some very unique and diverse content. These stations are not bound by geographic locations or restrictions and are not subject to local music trends. These unique qualities provide the stations with an opportunity to outperform terrestrial radio stations with the content they broadcast.

I will occasionally highlight stations that I found to be a cut above the rest for their choice of programming content.

I am a connoisseur of 80's music, and I absolutely love the long forgotten New Wave genre. I had the wonderful opportunity of listening to this fantastic music and being part of a local college radio station where alternative music ruled the airwaves. The 80's represent a breakthrough for music in many genres, from electronic to trance and punk. How I missed my New Wave music!

Radio Nigel was an Internet radio station broadcasting from San Diego, California and was run by Steve West when he worked at 91X. This extraordinary station played all the one hit New Wave wonders from that era, from Voyage Voyage by Desireless, to Crystal Clear by The Mighty Lemon Drops, to Jet Fighter by The Three O'Clock and all the music in between. Radio Nigel, unfortunately, faded off into the sunset never to return to the Inter-Tubes again.

Alas, my favorite genre has been resurrected again! New Wave Radio online broadcasting 24 hours with the best NEW WAVE SYNTH POP. Their motto is: "THE BEST NEW WAVE 80s synth pop." The music is phenomenal with all the rare hits of the new wave era. You can listen to the stream on the website or use your favorite media player software. No commercials, no cue over music DJ's, no long winded tirades by station management. This is absolute musical bliss.

You can visit the station's website and enjoy true musical art form in action: [newwave.zetaonline.net](http://newwave.zetaonline.net)

# Debian Linux Essentials

## David Childers

### Root Directory For System Administration Files

/bin	Contains essential command binaries.
/boot	Contains files that are required for the booting process.
/dev	Contains device driver files.
/etc	Contains static configuration files.
/home	User home directory.
/lib	Contains libraries required by binaries in other directories.
/media	Mount point for removable devices.
/mnt	Temporary mount.
/opt	Contains optional application software packages.
/proc	Contains virtual files that provide process and kernel information.
/run	Contains a temporary file storage facility.
/sbin	Contains essential system binaries.
/srv	Contains data for services provided by system.
/sys	Contains information about the system and its components.
/tmp	Contains temporary files that are preserved between reboots.
/usr	Contains the majority of user utilities, binaries and applications.
/var	Storage directory for files that may change often.

## Basic Linux Shell Commands

List all files in a directory.

ls

\$ ls

List all hidden files in a directory.

\$ls -a

Change directory.

cd

\$ cd directory-name

Change access permissions to a file.

chmod

\$ chmod ### file-name

Owner is the first number in chmod command.  
Group is the second number in chmod command.  
Other is the third number in chmod command.

	Owner	Group	Other
Read	4	4	4
Write	6	6	6
Execute	7	7	7

Download a file from the Internet.

wget

\$ wget web address of file and file name

Create a directory.

mkdir

\$ mkdir test

Remove a specific directory.

rmdir

\$ rmdir test

Remove a specific file.

rm

\$ rm test.txt

Displays a list of previous terminal commands.

history

\$ history

Find a specific file.

find

\$ find

Search for specific name.	\$ find -name file-name.file-type
Search for specific file with any file type extension.	\$ find -name file-name.*
Search specific directory for specific file.	\$ find ./directory-name -name file-name.file-type
Use -iname to ignore capital letters for specific file search.	\$ find ./directory-name -iname file-name.file-type
Search entire home directory for for specific file.	\$ find /home -iname file-name.file-type

List man page for specific command	man
	\$ man command-name

## **Software Utilities That Can Be Used Instead Of Command Line**

### Gnome Commander

A dual panel graphical file manager for the GNOME desktop environment. It is designed for advanced graphical file management. (This application can be used for other desktop environments.)

### Gnome Disk Utility

A graphical user interface that allows administration of attached hard drive devices. (This application can be used for other desktop environments.)

- Format.
- Create, delete or adjust partitions.

### Baobab

A graphical tool to analyze disk usage.

### Nano

A text editor that uses a command line interface.

## **Debian System Update Commands**

```
$ apt-get update  
$ apt-get dist-upgrade  
$ apt-get autoclean
```

## Apt Get Command Guide

Install software package.	\$ apt-get install (package name)
Fix broken install.	\$ apt-get -f install
Install multiple packages.	\$ apt-get install ( package #1) ( package #2)
Remove software package.	\$ apt-get remove (package name)
Remove packages that were automatically installed to satisfy dependencies and are no longer needed.	\$ apt-get autoremove (package name)
Remove package AND configuration file.	\$ apt-get --purge remove (package name)
Updates list of available packages. (From the Debian repositories.)	\$ apt-get update
Upgrade software without regards to dependencies. No additional packages are installed or removed.	\$ apt-get upgrade
Upgrade ensures that all dependencies are resolved.	\$ apt-get dist-upgrade
Update package cache and checks for broken dependencies.	\$ sudo apt-get check
Clean disk space by removing old .deb files from the local repository.	\$ apt-get clean
Only removes package files that can no longer be downloaded, and are largely useless.	\$ apt-get autoclean
Display package name application description.	\$ apt-cache search (package name)
Display package information and short description.	\$ apt-cache show (package name)
Check dependencies for software package.	\$ apt-cache showpkg (package name)
List all the available packages.	\$ apt-cache pkgnames

## Debian Documentation

### Wifi drivers

[wiki.debian.org/WiFi](http://wiki.debian.org/WiFi)

### Video drivers

[wiki.debian.org/GraphicsCard](http://wiki.debian.org/GraphicsCard)

### Multimedia codecs

[wiki.debian.org/MultimediaCodecs](http://wiki.debian.org/MultimediaCodecs)

### Flash player

[wiki.debian.org/FlashPlayer](http://wiki.debian.org/FlashPlayer)

### System printing

[wiki.debian.org/SystemPrinting](http://wiki.debian.org/SystemPrinting)

### Reference Information

[www.debian.org/doc/manuals/debian-reference](http://www.debian.org/doc/manuals/debian-reference)

### Mail list

[lists.debian.org/debian-security-announce](http://lists.debian.org/debian-security-announce)

[lists.debian.org/bugs.html](http://lists.debian.org/bugs.html)

[lists.debian.org/ports.html](http://lists.debian.org/ports.html)

[lists.debian.org/users.html](http://lists.debian.org/users.html)

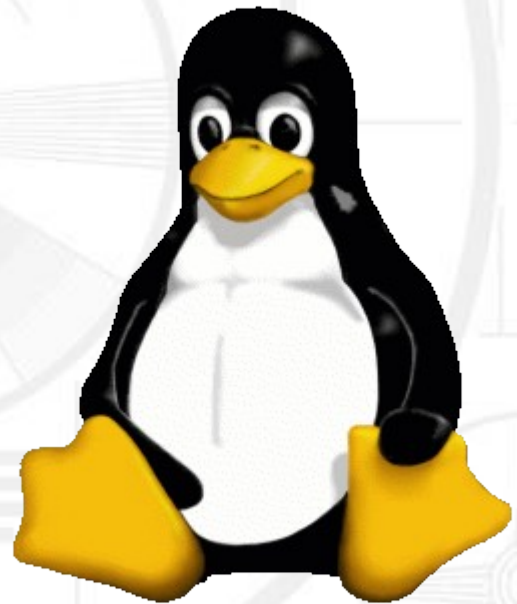
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## Tux The Linux Mascot

Tux is a penguin character and the official mascot of the Linux kernel. Originally created as an entry to a Linux logo competition, Tux is the most commonly used icon for Linux, although different Linux distributions depict Tux in various styles. The character is used in many other Linux programs and as a general symbol of Linux.

The concept of the Linux mascot being a penguin came from Linus Torvalds, the creator of Linux. Tux was created by Larry Ewing in 1996 after an initial suggestion made by Alan Cox and further refined by Linus Torvalds on the Linux kernel mailing list. Torvalds took his inspiration from an image he found on an FTP site, showing a penguin figurine looking strangely like the Creature Comforts characters made by Nick Park. The first person to call the penguin "Tux" was James Hughes, who said that it stood for "(T)orvalds (U)ni(X)". However, tux is also an abbreviation of tuxedo, the outfit which springs to mind when one sees a penguin.

Attribution: [en.wikipedia.org/wiki/Tux](http://en.wikipedia.org/wiki/Tux)



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Attribution: lewing@isc.tamu.edu and The GIMP.

## Linux Multimedia Software Robert Andrews

### Openbroadcaster

Video recording and live streaming.

[www.obsproject.com](http://www.obsproject.com)

### Snowmix

Mix live and recorded video and audio feeds.

[sourceforge.net/projects/snowmix](http://sourceforge.net/projects/snowmix)

### Savonet

Audio and video streams generator.

[sourceforge.net/projects/savonet](http://sourceforge.net/projects/savonet)

### VLC

The Swiss army knife of multimedia.

[www.videolan.org](http://www.videolan.org)

### Mixxx

Software for audio DJ and streaming.

[www.mixxx.org](http://www.mixxx.org)

### Rivendell

Complete radio broadcast automation solution,

[www.rivendellaudio.org](http://www.rivendellaudio.org)

### Airtime

Broadcast automation for scheduling and playout.

[sourceforge.net/projects/airtime](http://sourceforge.net/projects/airtime)

### ARAS

Broadcast automation system.

[aras.sourceforge.net](http://aras.sourceforge.net)

### Jack Audio

Take the audio output of one software application and send it to another.

[www.jackaudio.org](http://www.jackaudio.org)

### JACK Audio Connection Kit

Qt GUI Interface to control the JACK audio daemon.

[sourceforge.net/projects/qjackctl](http://sourceforge.net/projects/qjackctl)

### KXStudio

A collection of applications for audio production.

[kxstudio.sourceforge.net](http://kxstudio.sourceforge.net)

### KDEnlive

KDE application for video editing.

[www.kdenlive.org](http://www.kdenlive.org)

### OpenShot

Advanced software for video editing.

[www.openshot.org](http://www.openshot.org)

### Audacity

Audio recording and editor.

[web.audacityteam.org](http://web.audacityteam.org)

### Ardour

Audio recording, editing and mixing application.

[www.ardour.org](http://www.ardour.org)

### Icecast

Audio and video multimedia streaming server.

[www.icecast.org](http://www.icecast.org)