

ShoutCast v2 - Broadcasting with SAM Broadcaster

In this tutorial we are going to explain how to broadcast to our ShoutCast v2 running under CentovaCast 3 using SAM Broadcaster.

Differences Between ShoutCast v1 and v2 And Broadcasting Modes

Live Source Connections

Enter this information into your live source software to perform a live broadcast:

Server hostname: **50.22.211.228**
Maximum bit rate: **32**

If your live source client supports modern SHOUTcast v2-style source connections:

Server type: **SHOUTcast v2**
Server port: **8006**
Username: (The username of one of your **DJ accounts**)
Password: (The password for your DJ account)

If your live source client only supports old-style SHOUTcast v1-style source connections:

Server type: **SHOUTcast (v1)**
Server port: **8004**
Password: (The username and password of one of your **DJ accounts**, separated by a colon)
Example: **jsmith:secret**

There are several differences when it comes to broadcasting between ShoutCast 1 and ShoutCast 2. With ShoutCast 1 there were 2 broadcasting modes - live and AutoDJ. If you didn't want to use AutoDJ at all you could just broadcast live and if you wanted to use AutoDJ you would have to disable it when you wanted to broadcast live and then re-enable it when you stopped broadcasting live.

With ShoutCast 2 you can have AutoDJ enabled and if you start broadcasting it will automatically turn off AutoDJ while you are broadcasting live and once you stop broadcasting AutoDJ will automatically start again. If you don't want to use AutoDJ at all you can just broadcast as you would in ShoutCast 1, while you are broadcasting live that stream can be heard on your station and when you're not broadcasting there is nothing to be heard.

ShoutCast 2 also comes with backwards compatibility. What that means is that if you're using a software that doesn't support ShoutCast v2 yet you can still broadcast with it but you have to use a special port that is dedicated to the backwards compatibility for v1.

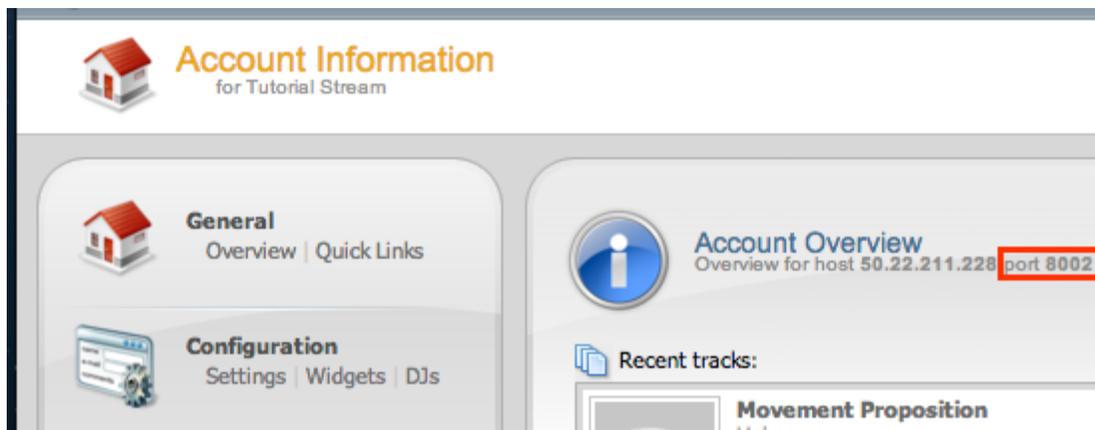
Because of these additions there are now 3 ports in ShoutCast 2 compared to the one port in ShoutCast 1, this can lead to some confusion so we are going to explain here what port serves for what

There are two ports in **Quick Links** - SHOUTCast v2 and SHOUTcast v1 and these ports are **ONLY** used when AutoDJ is **ON**, they **won't** work if you don't have AutoDJ enabled and playing.

If you want to make use of the feature that automatically turns AutoDJ on and off when you start/stop broadcasting these are the ports you need to use. The SHOUTcast v1 port is for the broadcasting software that hasn't been upgraded to support SHOUTcast v2 broadcasting that we mentioned before. If you are using such a software you will need to use the port listed under SHOUTcast v1, 8004 in our example.

If you are using a software that does support SHOUTcast v2 streaming you will be using the SHOUTcast v2 port. Another thing you need to do before you can start broadcasting using these ports is creating DJ accounts, when you have AutoDJ enabled you can't use the default source password for broadcasting, you have to create a separate DJ account for that. For instructions on how to create a DJ account please see the DJ Management tutorial in our knowledgebase.

Live Broadcasting Only



The ports located under Quick Links are **only** meant for broadcasting when you have AutoDJ enabled. If you try to connect using those ports when AutoDJ isn't enabled you won't be able to. If you don't want to use AutoDJ you can broadcast in live only mode and you will need to use a special port for that as well. To get that port go to the overview page of your account (click on **Overview under General**) and to the right under **Account Overview** you will see the port



(highlighted in the red rectangle in the image above). You will need to use that port if you want to broadcast live with AutoDJ **disabled**.

You can also broadcast to this port using SHOUTcast v1 software.

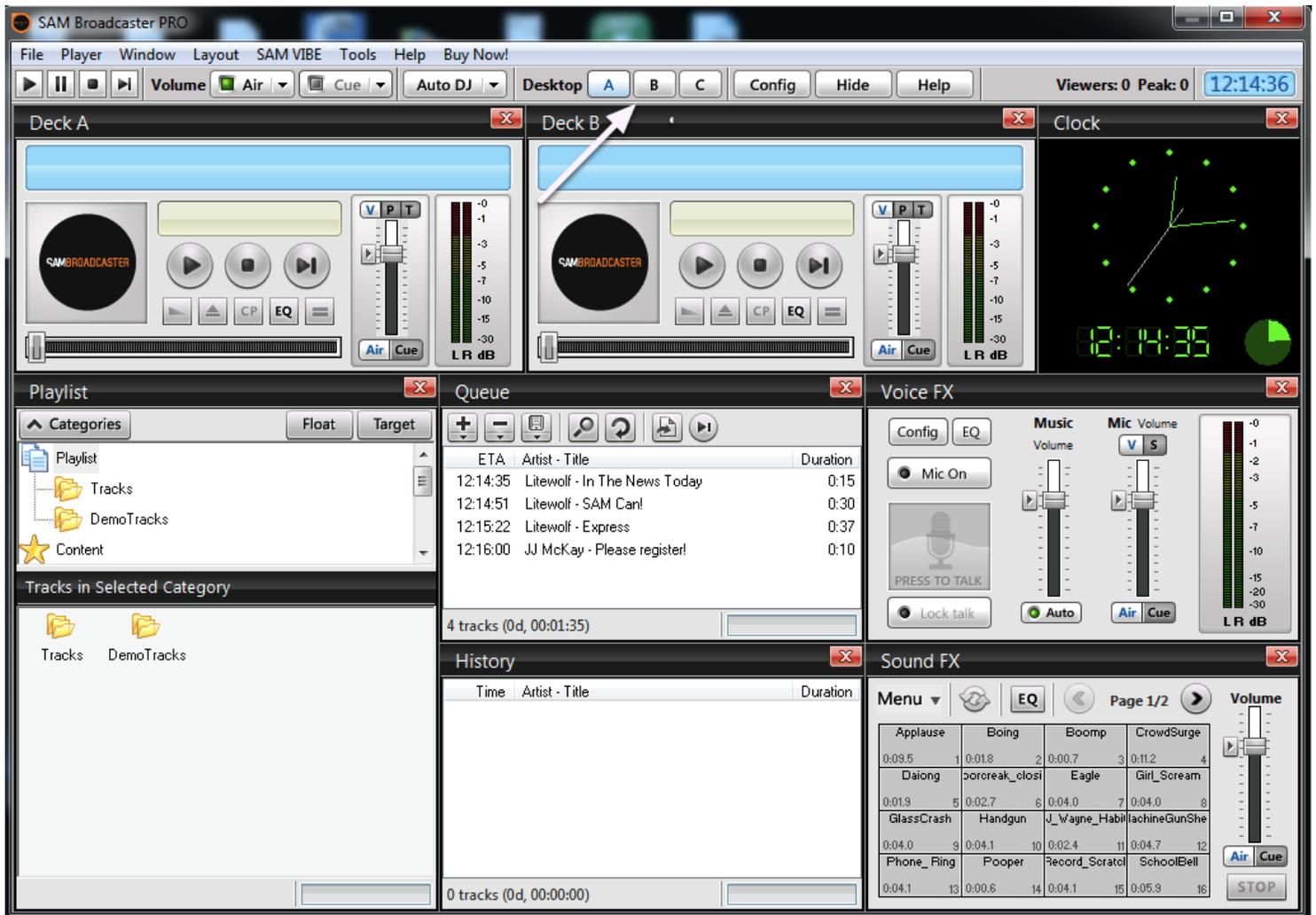
Setting Up AutoDJ

In this tutorial we are going to be explaining how to broadcast live using SAM Broadcaster while AutoDJ is enabled. If you want to only broadcast live without using AutoDJ just don't enable the AutoDJ and instead of using the port listed under Quick Links (Port 8006 in our example) use the one listed under **Account Overview** (Port 8002 in our example).

For complete instructions on how to enable and use AutoDJ please see the AutoDJ tutorial in our knowledgebase.

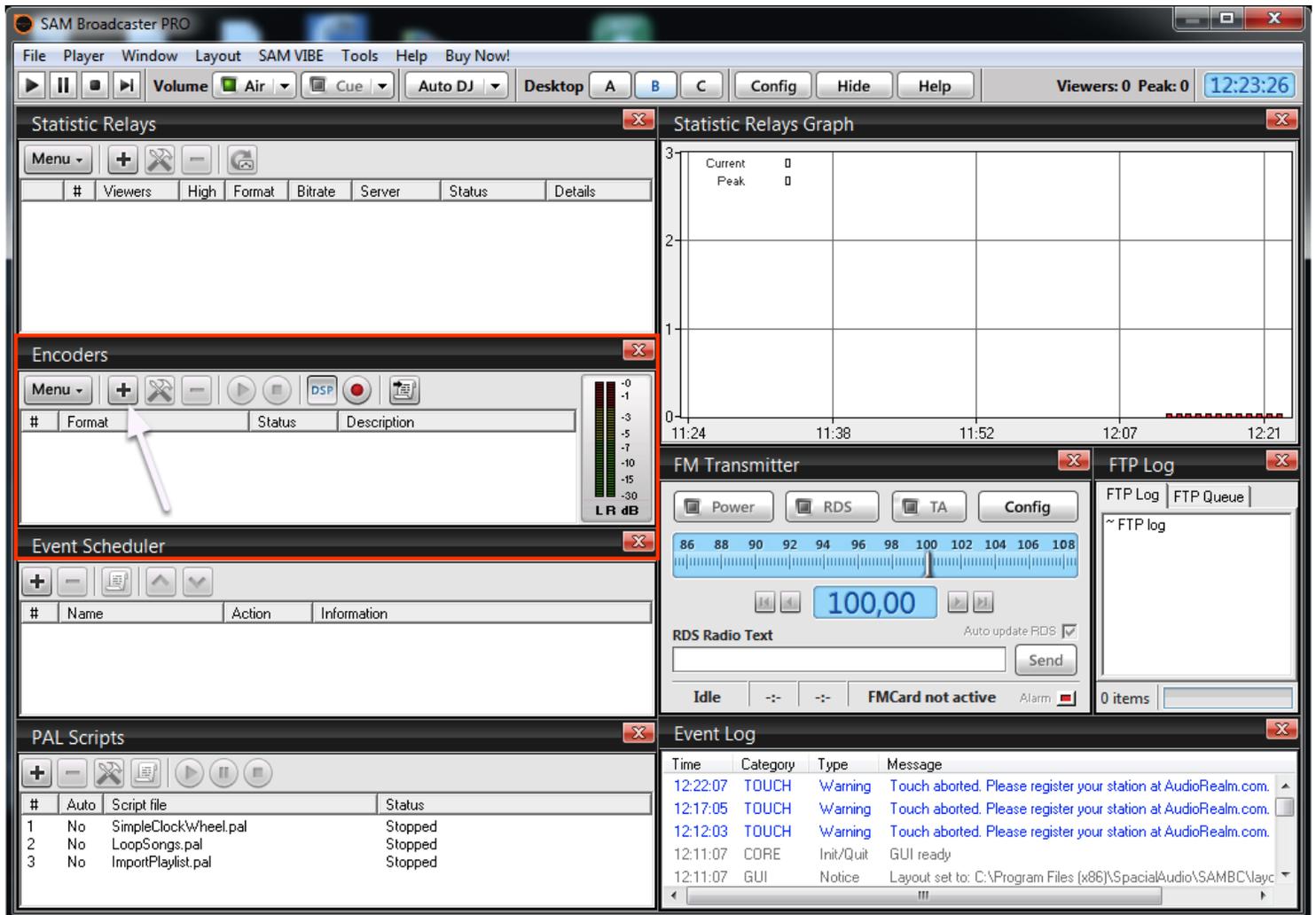
After you have completed the AutoDJ setup and it is broadcasting come back to this tutorial.

Encoder Setup



When you open up SAM Broadcaster you should see a screen similar to the one above. The first thing we need to do is setup an encoder, to do that go to Desktop B by clicking on **B**.

Encoder Setup - Desktop B



The screenshot shows the SAM Broadcaster PRO interface. The 'Encoders' section is highlighted with a red rectangle. A white arrow points to the '+' button in the 'Encoders' toolbar. The interface includes various panels: 'Statistic Relays', 'Statistic Relays Graph', 'FM Transmitter', 'FTP Log', 'Event Scheduler', and 'PAL Scripts'.

Encoders Panel:

#	Format	Status	Description

FM Transmitter Panel:

Power: 86 88 90 92 94 96 98 100 102 104 106 108
 RDS Radio Text: Send
 Status: Idle FMCard not active Alarm

Event Scheduler Panel:

#	Name	Action	Information

PAL Scripts Panel:

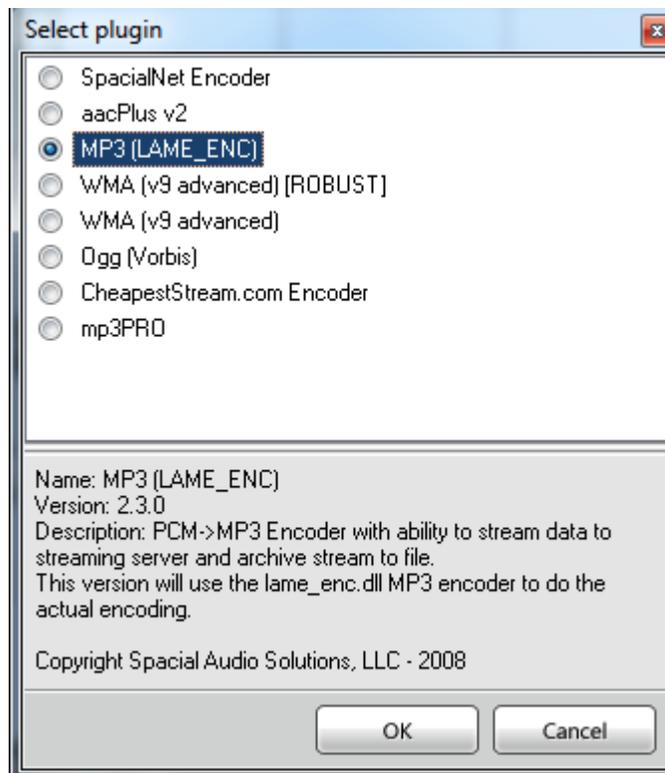
#	Auto	Script file	Status
1	No	SimpleClockWheel.pal	Stopped
2	No	LoopSongs.pal	Stopped
3	No	ImportPlaylist.pal	Stopped

Event Log Panel:

Time	Category	Type	Message
12:22:07	TOUCH	Warning	Touch aborted. Please register your station at AudioRealm.com.
12:17:05	TOUCH	Warning	Touch aborted. Please register your station at AudioRealm.com.
12:12:03	TOUCH	Warning	Touch aborted. Please register your station at AudioRealm.com.
12:11:07	CORE	Init/Quit	GUI ready
12:11:07	GUI	Notice	Layout set to: C:\Program Files (x86)\SpatialAudio\SAMBC\layc

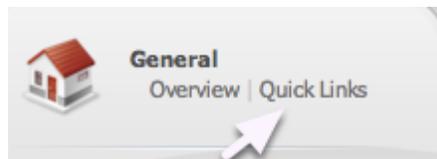
Now on Desktop B you will see a section called **Encoders** (red rectangle). To get started with the Encoder setup click on the **+** button (pointed to by the arrow).

Encoder Setup - Select Plugin



At this step you need to select your broadcasting format. If you are not familiar with online broadcasting we recommend that you use MP3 because it's supported on most platforms. Select MP3 (LAME_ENC) and click on **OK** to proceed to the next step.

Getting The Details



At this point we need to get some details we will need for broadcasting, for this head back to CentovaCast and under **General**, on the left hand menu, click on **Quick Links**.

Streaming Details

Live Source Connections

Enter this information into your live source software to perform a live broadcast:

Server hostname: **50.22.211.228**
Maximum bit rate: **32**

If your live source client supports modern SHOUTcast v2-style source connections:

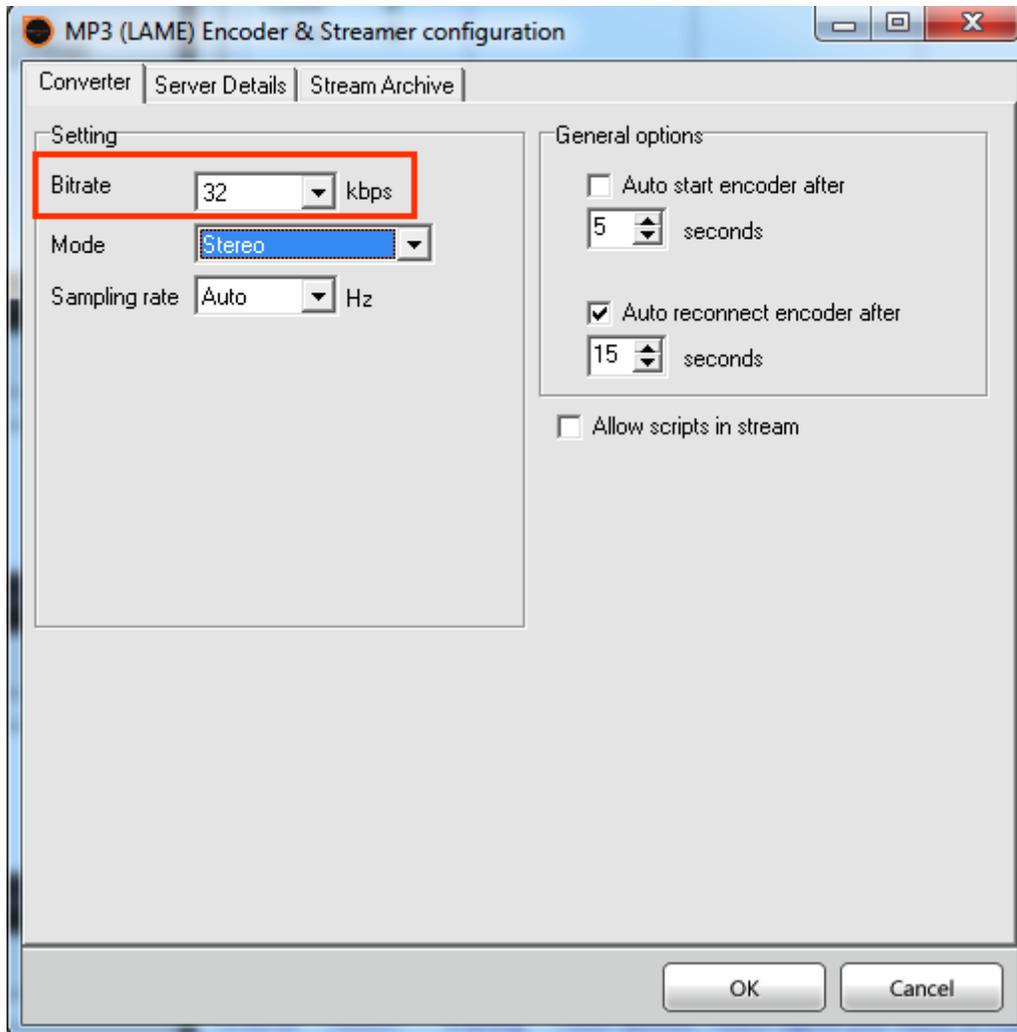
Server type: **SHOUTcast v2**
Server port: **8006**
Username: (The username of one of your **DJ accounts**)
Password: (The password for your DJ account)

If your live source client only supports old-style SHOUTcast v1-style source connections:

Server type: **SHOUTcast (v1)**
Server port: **8004**
Password: (The username and password of one of your **DJ accounts**, separated by a colon)
Example: **jsmith:secret**

Now scroll down to Live Source Connections. From here you will need the: **IP (Server hostname), the maximum bit rate and the port**. There are two ports here, in this tutorial we are going to be explaining how to broadcast while AutoDJ is running but if you just want to broadcast live without AutoDJ please see the "Live Broadcasting Only" step at the beginning of the tutorial. While SAM Broadcaster has a v2 mode it isn't fully compatible at the time of this writing so we have to use the v1 port, which in our case is **8004**. Now that we have all the details we need go back to SAM Broadcaster.

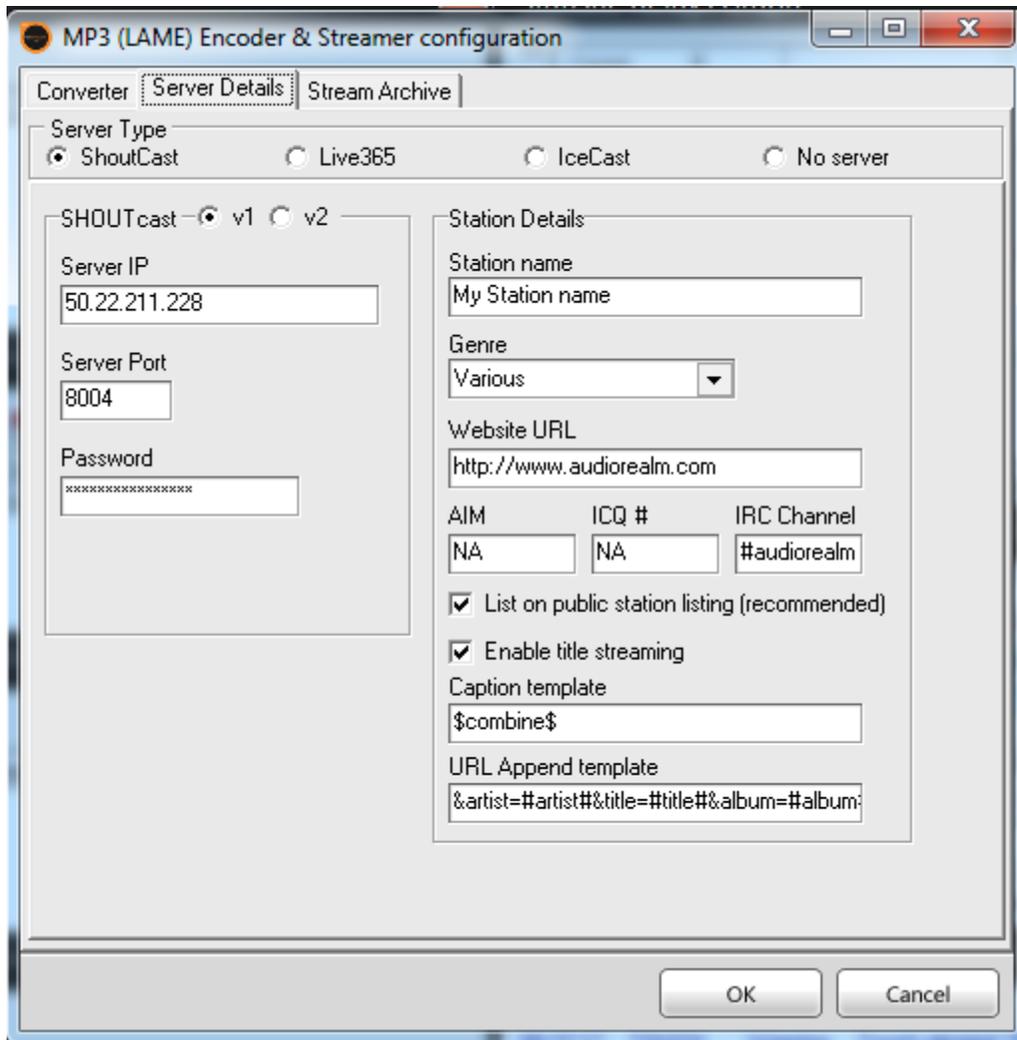
Encoder Setup - Converter



In this step we need to set the bit rate of the encoder we are creating. Under bit rate set the maximum bit rate of your package, in our case that's **32** kbps. If you want you can change the settings under General Options but the default ones will work fine.

After you have set all the options on this page proceed to the **Server Details** tab.

Encoder Setup - Server Details



On Server Details you should first select the **Server Type**. Set it to **Shoutcast**. Underneath you have options to select the version, even though we are setting up a connection to a v2 server you need to choose v1 because SAM doesn't have full v2 compatibility at the time of this writing. At the **Streaming Details** step, earlier, we got the IP and Port. Please note that when you are copying the details in be careful not to copy a blank space with them, if you do that you could get errors when you try to connect. If you do get errors always check if there are any blank spaces in the IP and Port fields.

For the password we need to first setup an DJ account, which we will explain in the next step.

Under **Station Details** to the right you can set the name of your stream/station that will be



displayed in radio directories and in your listener's player. You can also set the Genre and the website URL of your radio, if you have one, if you don't you can just leave it blank. You can also enable and disable listing on the shoutcast.com directory by checking/unchecking the **List on public station listing** option.

In the next step we are going to explain how to setup a DJ account and what to fill into the Password field.

DJ Account Setup

DJ Account Settings

Username:

Password:

Confirm password:

Real name:

Status: ▾

Privileges

Permissions:

(Hold Ctrl to select multiple.)

Login Restrictions

Allow logins:

(Hold Ctrl to select multiple.)

Allow from: ▾ : ▾ ▾

Allow until: ▾ : ▾ ▾

Save

To setup an DJ account go to the left hand menu in CentovaCast and under the **Configuration** menu click on **DJs**.

Once you're in DJ Management look to the right and you should see **Create DJ account**.

In the **username** field fill in the username you want this account to have.



Under **password and confirm password** fill in the password you want this account to have.

The real name serves mostly as a way for you to differentiate the accounts from one another if you end up using usernames that you can't easily recognize, you don't have to necessarily enter a name into that field, it can be anything you want.

Leave the Status to Enabled if you want to use this account.

Under Privileges you can set how much access to different functions this user has in CentovaCast. You can select all of the permissions to give full access by holding down **SHIFT** and then clicking on the first and last item in the list. If you just want to select one permission you can just click on that item and if you want to select several you can hold the **CTRL** button and clicking on each of the items you want to have enabled.

Login Restrictions

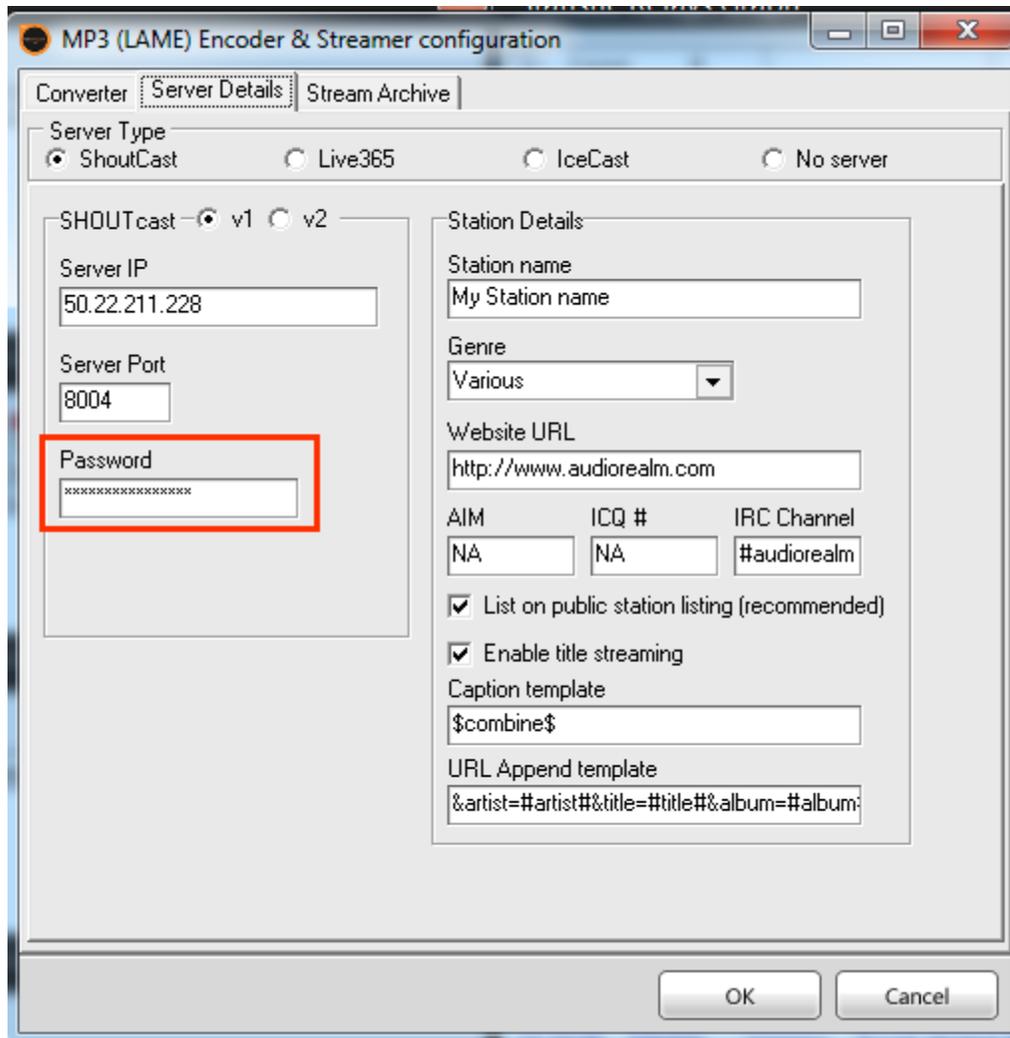
If you want you can also make time based restrictions on the account. By default it is set to be active 24/7 but you can set it to any time you want. You select the days the same way you did with the permissions. You can also set the hours from and until the account will be active.

We will just leave it at the default which makes it active 24/7.

Once you have filled in all the details click on **Save** to create the account. Then you also need to restart the server to apply the change. To restart the server look for the **Server** menu on the left and click on **Restart**.

After the restart is done you can return to SAM to continue with the configuration.

Encoder Setup - Server Details - Password

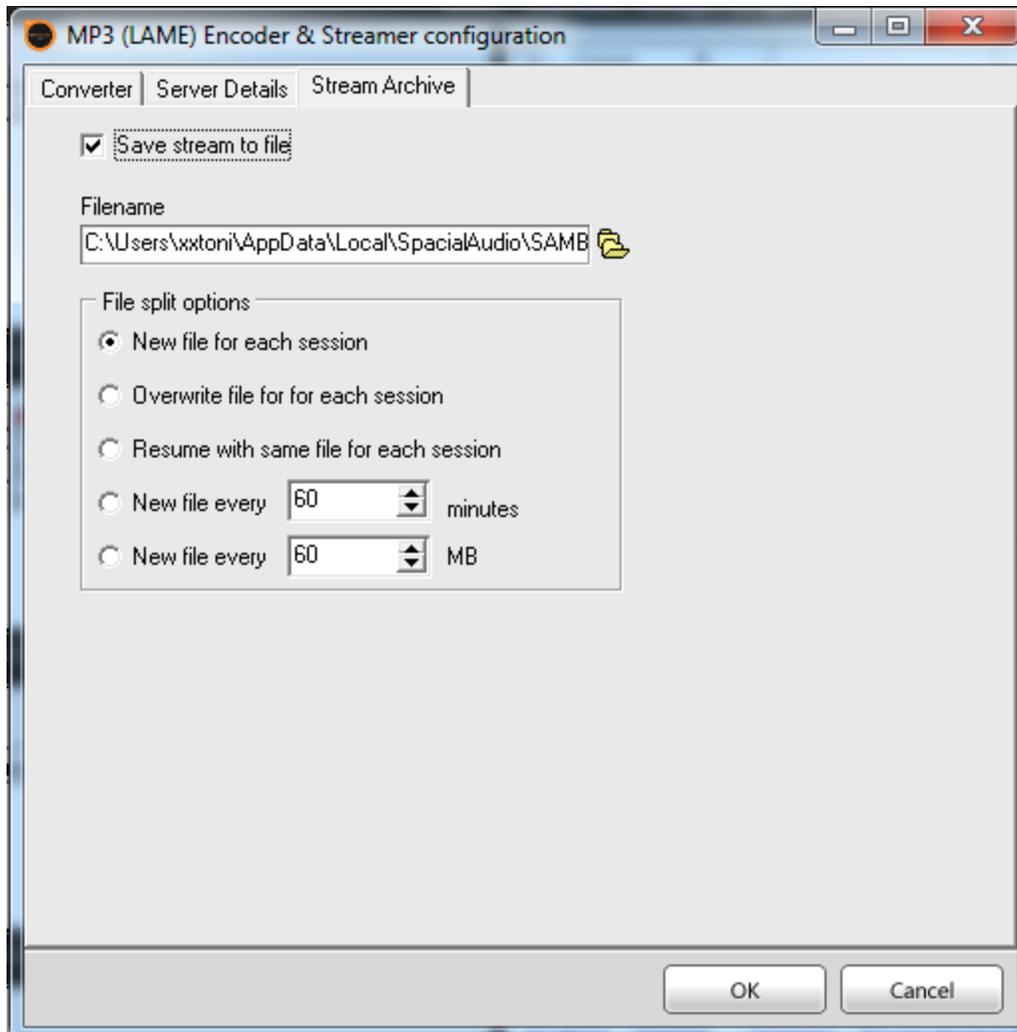


The screenshot shows the 'MP3 (LAME) Encoder & Streamer configuration' window with the 'Server Details' tab selected. The 'Server Type' is set to 'ShoutCast'. Under 'SHOUTcast', 'v1' is selected. The 'Server IP' is '50.22.211.228' and the 'Server Port' is '8004'. The 'Password' field is highlighted with a red box and contains a series of asterisks. The 'Station Details' section includes: 'Station name' (My Station name), 'Genre' (Various), 'Website URL' (http://www.audiorealm.com), 'AIM' (NA), 'ICQ #' (NA), and 'IRC Channel' (#audiorealm). There are also checkboxes for 'List on public station listing (recommended)' and 'Enable title streaming', both of which are checked. The 'Caption template' is '\$combine\$' and the 'URL Append template' is '&artist=#artist#&title=#title#&album=#album:'.

Because SAM doesn't fully support SHOUTcast two and so doesn't have a username field you need to enter both the username and password into the password field using a special format. That format is: **username:password**. That's username then a colon and then the password with no spaces in between. In our example we used tutorial as the username and 123pass as the password, we would enter **tutorial:123pass** into the password field.

Once you have entered the password you can proceed to the **Stream Archive tab**.

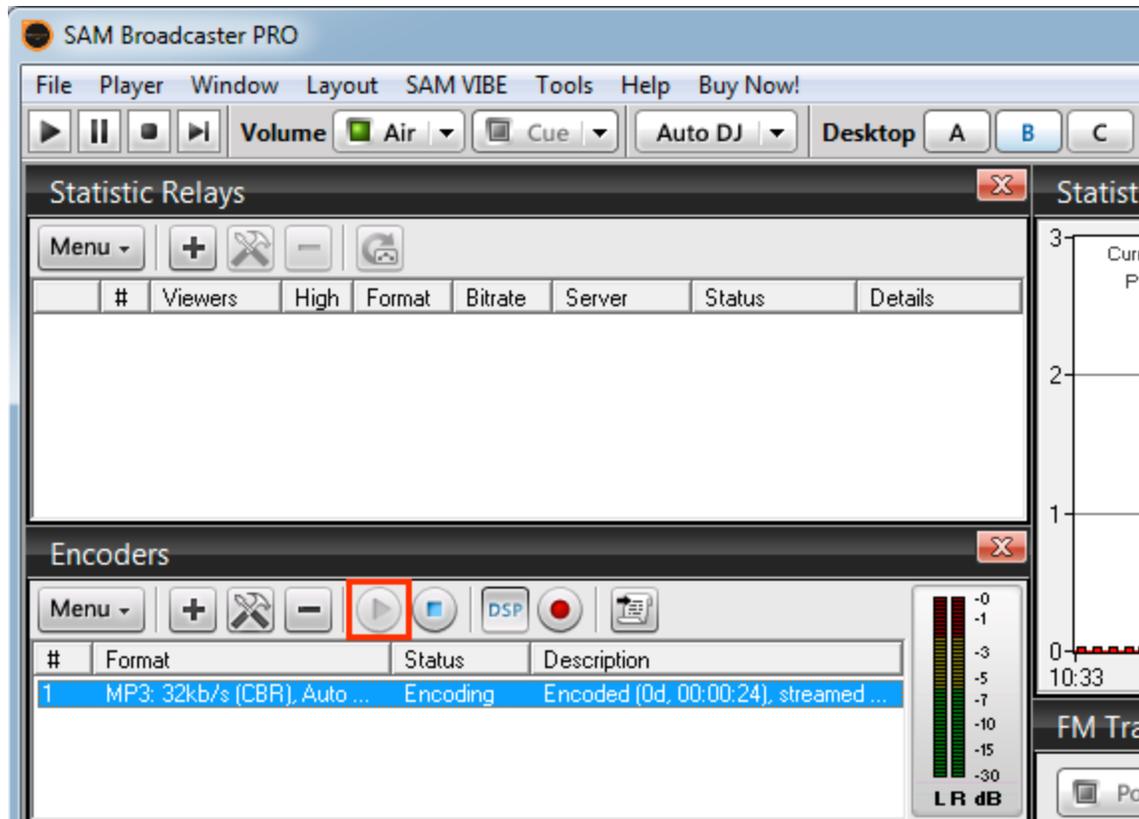
Encoder Setup - Stream Archive



Under Stream Archive you can enable the recording of your stream. By default this is not enabled but if you want you can enable it and it will record your stream into a file. You can select the location of that file under Filename by clicking on the folder icon on the right.

Once you have defined the settings here click on **OK**.

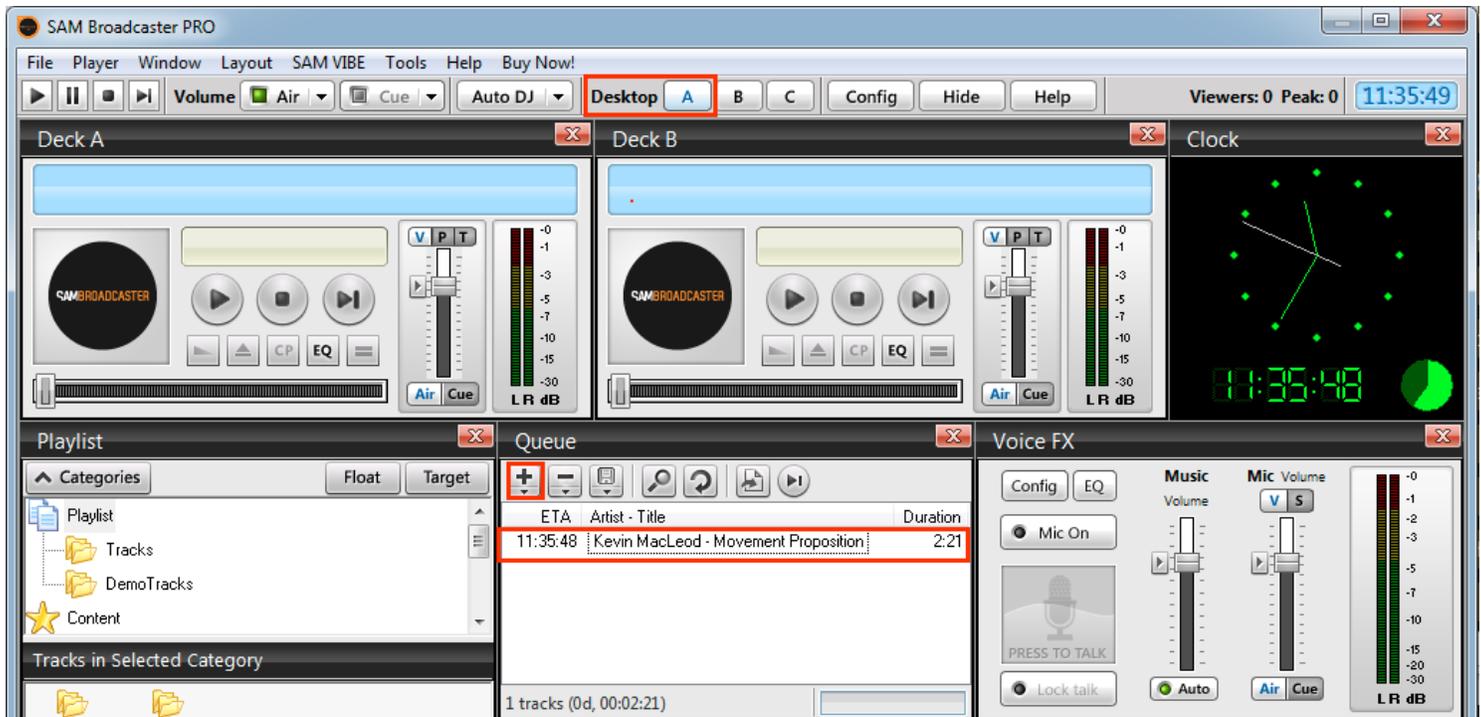
Starting The Encoder



Now that you have finished with the setup of the encoder you can try connecting to the server. Select the encoder you created by clicking on it and then connect to the server by clicking on the Play button (highlighted in the red rectangle above). If it says **Encoding** under status you are broadcasting. If it doesn't say that something is wrong, the status will usually give you some indication of what is wrong. If you can't figure out the problem yourself contact support.

Now that we are connected we are going to be taking a look at how to actually play a song.

Playing Songs



Go back to **Desktop A** by clicking on **A** under **Desktop** in the top menu. Once you are on Desktop A see the Queue. To add songs click on the **+** symbol and then select the songs you want to play. Once you have some songs in the Queue double click on it to start playing it. It will go to Deck A and start playing.

Using VoiceOver



Now that you are broadcasting you will probably want to make an announcement or say something sooner or later. To do that go to Voice FX and click on the **Mic On** button. After that you can either hold the **Press To Talk** button while you're speaking or click on **Lock talk** to talk until

you "unlock" this button.

Listening To Your Stream



Now that you are actually broadcasting it's time to hear how your stream sounds.

The easiest way to listen to your stream is to use the built in player in CentovaCast at the top of the page. Just click on the play button and your stream should start playing after a second or two.

Alternatively you can go to **Quick Links** and use one of the tune in links to download a playlist file and listen from a desktop player like Winamp.

For your listeners you can either provide them with the link for listening on their desktop players or you can embed a player into your web site and have them listen there. For instructions on how to embed a player please see the RadioToolBox and player embed tutorial in our knowledgebase.