

## TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>SLEEK SHOUTcast &amp; Icecast Radio Player .....</b> | <b>2</b>  |
| <b>System Check .....</b>                               | <b>2</b>  |
| <b>Radio Stations: .....</b>                            | <b>2</b>  |
| <b>Plugin Setup: .....</b>                              | <b>2</b>  |
| Step 1 - Supporting Links .....                         | 3         |
| Step 2 - Supporting Js Code .....                       | 3         |
| Step 3 - Inserting The Player's HTML Code.....          | 4         |
| <b>API .....</b>  | <b>4</b>  |
| <b>Further Information About The API .....</b>          | <b>5</b>  |
| URL .....   | 5         |
| Last.FM and iTunes Artworks .....                       | 6         |
| Last.FM API Key .....                                   | 6         |
| Internet Explorer Users .....                           | 7         |
| Cors Proxy.....   | 7         |
| <b>Api Examples.....</b>                                | <b>8</b>  |
| Simple Shoutcast Radio .....                            | 8         |
| Shoutcats radio With Logo .....                         | 8         |
| Shoutcast Player With Different Stream ID .....         | 8         |
| Simple Icecast Player .....                             | 8         |
| Styling Features .....                                  | 9         |
| <b>Itunes Link Integration .....</b>                    | <b>10</b> |
| <b>Questions &amp; Troubleshooting .....</b>            | <b>11</b> |
| <b>Copyright .....</b>                                  | <b>12</b> |
| <b>Final word .....</b>                                 | <b>12</b> |

# SLEEK SHOUTCAST & ICECAST RADIO PLAYER

Thank you for purchasing this product. This is a plugin based on HTML5 and jQuery using the audio object to play and pull data from SHOUTcast and Icecast servers.

In the following sections, the installation and setup of the player are explained.

## SYSTEM CHECK

This is a HTML5 plugin which means you can install it on any sort of website. From a basic static web page to a dynamic website. You can install it on WordPress, Joomla and similar CMS's. However, for the simplicity of the setup, in this manual, the general method is explained for installing it (on a normal webpage). For other CMS's such as WordPress the method would be similar but with some advance actions that is out of the boundary of this plugin and relays on the user's experience.

## RADIO STATIONS:

To retrieve data from SHOUTcast and Icecast stations, the servers' spec for each should be as following (Minimum):

SHOUTcast Version: 2

Icecast Version: 2.4.0

Simply you can find out by checking if your radio station contains a public homepage that has information about the streams.

## PLUGIN SETUP:

Basically, the installation can be done in 3 steps as follows:

1. Insert the supporting links in the header of the webpage.
2. Insert the supporting JS code at the end of the body tag.
3. Insert the player's HTML code anywhere you desire on the website.

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## STEP 1 - SUPPORTING LINKS

The following links are required to be in the header of the webpage that will contain the player:

```
<meta name="viewport" content="width=device-width, initial-scale=1">
<script src="http://code.jquery.com/jquery-3.2.1.min.js"></script>
<link href="css/SleekPlayer.css" rel="stylesheet"/>
```

The first Metatype, helps to keep the plugin responsive. The second script is the jQuery source that is required to run the player. And the third link is the CSS file which is responsible for how the player looks like.

**NOTE:** please make sure the path of each file is accessible, since wrong path at this stage can lead to not showing the player or not functioning at all.

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## STEP 2 - SUPPORTING JS CODE

The core part of the plugin needs to be inserted at the bottom of the webpage, just before the '</body>' tag.

Also, the API of the player needs to be located there, where you can configure the player through that.

```
<script type="text/javascript">
  if(/MSIE \d|Trident.*rv:/.test(navigator.userAgent))
    document.write('<script src="js/SleekPlayerIE.js"></script>');
</script>
<script type="text/javascript" src="js/SleekPlayer.js"></script>
<script>
  $("#radio1").SleekPlayer({
    type: "SHOUTCAST",
    URL: "http://80sbeats.cyberbeats.net:8000",
  });
</script>
```

The first script is for IE version of the application. If you prefer to not support IE, you can simply remove that. However, the second script is the JS file that is responsible for the functions of the player.

And the last script is how the player in the webpage connects to the plugin. The id **"#radio1"** is a unique identifier that denotes the plugin to the HTML code that will be inserted in the next step.

The element **"type"** is the type of the radio, which is either *shoutcast* or *icecast*.

The element **"URL"** is the URL of the radio station, following with its port.

**NOTE 1:** The URL needs to be valid, as if you open it in the browser, the home page of the radio should show up.

**NOTE 2:** Make sure the URL does not end with a slash **"/"** letter.

**NOTE 3:** Make sure the URL is not the streaming URL. It should be the homepage URL. For the streaming path, you can specify it separately through API.

**NOTE 4:** There are many more features that you can configure through API that will be explained in the following sections.

### STEP 3 - INSERTING THE PLAYER'S HTML CODE

The final step is to insert the HTML code anywhere in the webpage. This is where you want your player to appear at. So, it could go inside a div or any other element that you wish.

```
<div class="SleekPlayer" id="radio1"></div>
```

Make sure the id element of the above code is the same as the id you set in the previous step for the API. That's how you identify the specified API and settings to be implemented on this HTML code.

If all the above sections are done correctly, the player must work at this stage.

**NOTE:** You may have different players within the same page. For this reason, you need to make sure the right ids are set and each id is unique for each player. Otherwise the players would not be functional.

### API

The player comes with a powerful API that through it you can configure it in terms of style and functionality.

The following is the complete list of it API elements:

| # | Elements    | Description   | Examples / Default Values                                       |
|---|-------------|---|---|
| 1 | type        | The type of the radio station, it should be either <i>shoutcast</i> or <i>icecast</i>   | <code>type: "SHOUTCAST"</code>                                  |
| 2 | URL         | The URL of the radio station homepage.  | <code>URL: "http://5.39.71.159:8716"</code>                     |
| 3 | lastFMkey   | The API key for Last.FM.<br><i>The opposite value is the default value.</i>   | <code>lastFMkey:<br/>"665b8ff2830d494379dbce3fb3b218a9"</code>  |
| 4 | mount_point | Icecast's mount point, it should be the streaming mount point.  | <code>mount_point: "chiptune.mp3"</code>                        |
| 5 | cors_proxy  | <b>Icecast only.</b> As pulling data from Icecast requires cors, it is either possible through proxy websites such as the provided example or leaving it blank if the cors is set in the server's config.   | <code>cors_proxy: "https://cors-anywhere.herokuapp.com/"</code> |
| 6 | stream_id   | <b>Shoutcast only.</b> By default, its 1 but for station with multi stream IDs it could be any other number depending which stream needs to be accessed.<br><i>The opposite value is the default value.</i> | <code>stream_id: 1</code>                                       |

|    |               |  |   |
|----|---------------|--|---|
| 7  | Streampath    | <p><b>Shoutcast only.</b> This is the following section of the URL that shows the audio stream of the radio. The values for URL + streampath in the browser, is the URL for audio streaming. Leaving it blank will still make it work with the default value.</p> <p><i>The opposite value is the default value.</i></p> | <pre>streampath: "/stream?icy=http"</pre>             |
| 9  | default_image | <p>Sometimes when the image of the artist is not recognizable by the Last.FM or iTunes, a default image will be replaced instead. You can change it to any image you desire.</p> <p><i>The opposite value is the default value.</i></p>  | <pre>default_image: "./img/default_artwork.jpg"</pre> |
| 10 | blurriness    | <p>The blurriness of the background image. The default value is 7.</p>   | <pre>blurriness: "7px"</pre>                          |
| 11 | autoplay      | <p>Automatic audio streaming with page loading.</p> <p><i>The opposite value is the default value.</i></p>   | <pre>autoplay: false</pre>                            |
| 12 | itunes        | <p>If true, it uses iTunes servers to find a matching artwork for the playing song.</p> <p><i>The opposite value is the default value.</i></p>   | <pre>itunes: true</pre>                               |
| 13 | lastFM        | <p>If true, it uses iTunes servers to find a matching artwork for the playing song.</p> <p><i>The opposite value is the default value.</i></p>   | <pre>lastFM: true</pre>                               |

## FURTHER INFORMATION ABOUT THE API

In this section, further information about some of the API elements are explained.

### URL

The URL value should contain only the URL of the radio and its port. Such as

http://78.46.66.99:8000 = URL:PORT

The above URL is the main URL of the homepage of your radio station and not the streaming URL/path. The streaming path is the one that plays the radio.

**For SHOUTcast** by default the streampath is `"/stream?icy=http"`, which you don't need to specify it when configuring your player. But if you know the streampath is anything else, you can change it through the API.

Example:

```
streampath: "examplePath",
```

**For Icecast**, you require specifying the mount\_point of the radio. It could be anything such as `"music.mp3"` or anything else. Make sure you specify this in the API of the player.

Also to make sure the above settings are done correctly you can test the following combination in your browser and see if the radio starts playing.

### URL:PORT/STREAMPATH

Replace the **URL** with the URL of the radio station, replace the **PORT**, with the port of the station, and the **STREAMPATH**, with the streampath (or mount point) of the player.

**EXAMPLE:** <http://relay-chi.gameowls.com:8000/chiptune.mp3>

Running the above URL in a browser will play the radio.

---

## LAST.FM AND ITUNES ARTWORKS

This player use Last.FM and iTunes servers to get images of the playing music and artists. You can choose if you like to have any of these search engines active for your player. Please check the API for further information. However, please note that, the algorithm aims to find the right image as soon as possible therefore, there might be case where the song exists on iTunes or Last.FM servers and still the player does not find it in the given time frame. But that case is almost rare. Most of the time if the correct spelling of the song name and the artist name is given, the algorithm finds it on both or either of iTunes or Last.FM.

---

## LAST.FM API KEY

For that reason, an API Key is required, which a default one is inserted and works perfectly. But due to limitations from Last.FM, it might not be functional for busy websites.

You are suggested to get a private API Key from Last.FM and insert in in the API's configuration of the player. Remember the API Key we provided will be used by other users who bought the player and access rate will be shared with everyone. The best solution is to request your private API key using the Last.FM [official website](#).

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## INTERNET EXPLORER USERS

As you probably know IE is a tricky browser that does not support many modern features. For that reason, things such as the blur background, sliding volume, synchronized artwork algorithm does not work on it.

So these effects are deactivated. Sometimes you might notice that the image chosen for a song on IE is different than same song on other browsers. That's kind of out of control and the main aim with IE is to keep it working, even if some features are different than the actual ones.

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## CORS PROXY

Due to the [same origin policy](#) it is impossible to retrieve data from one website to another unless the service provider is allowed it. For Icecast servers' versions lower than 2.4.1, you need to either allow CORS from you Icecast server or use third party proxies.

In the Icecast server in root folder there is a COR or crossdomain.xml file, you need to specify the CORS setting in that file for the website the player is installed on.

Alternatively, you can use following third party websites:

```
cors_proxy: "https://cors-anywhere.herokuapp.com/"
```

or

```
cors_proxy: "http://crossorigin.me/"
```

## API EXAMPLES

In this section couple of API example are provided to help you understand how to work with the API:

### SIMPLE SHOUTCAST RADIO

```
$("#radioX").SleekPlayer({
  type: "SHOUTCAST",
  URL: "http://80sbeats.cyberbeats.net:8000",
});
```

This is the simplest set of API for SHOUTcast that only specifies the type of the player and the URL of the home page of the player.

### SHOUTCATS RADIO WITH LOGO

```
$("#radioX").SleekPlayer({
  type: "SHOUTCAST",
  URL: "http://80sbeats.cyberbeats.net:8000",
  itunes: false
});
```

This is the same as the previous example only contains a customized logo and its URL as the source of the logo. But it is set as iTunes off, that means it is only use Last.FM for finding artwork images. By default, both iTunes and Last.FM search are set to true.

### SHOUTCAST PLAYER WITH DIFFERENT STREAM ID

```
$("#radioX").SleekPlayer({
  type: "Shoutcast",
  URL: "http://144.76.92.208:9158",
  stream_id: 3,
});
```

in this example, the stream id is equal to `sid=3`. This is used in situations where a single radio station hosts multiple streaming.

### SIMPLE ICECAST PLAYER

```
$("#radioX").SleekPlayer({
  type: "icecast",
  URL: "http://78.46.66.99:8000",
  mount_point: "90beat.ogg",
  cors_proxy: "https://cors-anywhere.herokuapp.com/"
});
```

This is the simplest way of implementing an Icecast station in the player. All four elements are important to be correct to make the player working. The mount point is just the format and the name of the streaming channel which is already set up in your Icecast server. You can ignore the last element (CORS\_proxy) if you set the crossdomain.xml correctly in the Icecast server.

## STYLING FEATURES

```
$("#radioX").SleekPlayer({
  type: "icecast",
  URL: "http://78.46.66.99:8000",
  mount_point: "90beat.ogg",
  autoplay: true,
  default_image: "./img/mypic.jpg",
  blurriness: "2px",
});
```

In here you can see an example of changing blurriness, default background image, and autoplay.

## ITUNES LINK INTEGRATION

In this player, a new algorithm implemented that automatically identifies the current playing song and check if that song exists on iTunes. If so it will provide the link so the user can get more information about that track or even purchase it.

The algorithm uses the song title and the artist of the track and through its complicated process checks iTunes databases for corresponding link. Since it checks for the song through 3 different methods, there is a high chance that it finds the right track successfully. However, there are possibilities for false alarms. Also, if the track does not exist on iTunes, then the corresponding button on the interface becomes deactivated.

It is possible that one song exists of iTunes but the player does not find it, yet that's very rare to happen.

### **Improving the algorithm:**

You can do various practices to make sure the right iTunes links and artworks are always found, as the owner of the radio.

- Always use correct spelling for the artist name and song name
- Check the track on iTunes and copy the artist and song names as the correct way of spelling them
- Avoided adding extra information in brackets or whatever for artist or song names

As an example, if a song name is *"Dark Skies"* and on your radio, you provide it as *"Daark Skies"*, that is it likely that the player will not find it on the iTunes database. Also, if you spell it correctly but add extra information to it such as *"Dark Skies (new version)"* then still it is unlikely to be found on iTunes because simply *"new version"* is not recognized for this track on iTunes. Therefore, it is best to provide the exact name as it is provided by iTunes. Another example, would be, shortened words, such for the song *"Jamie's Cryin"* by Van Halen, it will not be found if you enter on your radio something like *"Jamie is crying"* or *"Jamie's crying"*. These are examples just to help you understand the algorithm better.

If the algorithm fails to find the right track with the given artists, then it tries to find at least the given artist's profile on iTunes and provide that as the link.

It is possible to provide more search engines to the algorithm to have more in-depth search in the database, but because the matter of the time, it would take too long to come up with the results (in 4-5 seconds), thus that is not suggested.

## QUESTIONS & TROUBLESHOOTING

### SETTING IT UP ON WORDPRESS?!

Even though this plugin is based on HTML5 and we do not support WordPress setup, but to make it easier, we can provide some tips to help you set it up on WordPress as many users have installed our products on WordPress successfully.

- Use a WordPress plugin to insert the supporting links inside the header (instead of doing it manually)
- The folder of the plugin must be registered in config.php

### THE PLAYER DOES NOT APPEAR?

Possible reasons would be wrong linking. Make sure the correct URL path is linked in the header and body tag of the player so all the jQuery and CSS files are accessible.

### IT IS PLAYING BUT NO DATA IS AVAILABLE?!

Most likely the radio station URL you provided is not valid, or the server does not provide data using that URL.

Other problems could be related to how the URL is provided in the API, the following is an example of the correct URL vs a wrong one:

URL: "http://144.76.92.208:9158" **(Correct)**

URL: "http://144.76.92.208:9158/" **(Wrong)**

Please note the second URL contains a slash "/" that makes the player broken.

### ICECAST NEXT SONG AND HISTORY?!

Icecast servers do not provide information about the previous played tracks and the next song. Therefore, the history is completed as songs are being played in the webpage. The player will add songs automatically one after the other.

### NO NEXT SONG FOR SHOUTCAST?!

If no next song is appearing for the SHOUTcast player, then most likely the server does not provide such feature. If you are the radio owner, you can activate it in your SHOUTcast server settings and it will be updated on the player automatically.

## COPYRIGHT

This player is entirely programmed and designed by Danial Sabagh @ [www.danialsabagh.com](http://www.danialsabagh.com)

However, the following plugins and API are used to make this product working.

[LAST.FM API](#)

[SHOUTCAST API](#)

[Icecast API](#)

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## FINAL WORD

If you enjoy using this product, I would really appreciate if you leave a feedback on the products page on [CodeCanyon - Review](#). And if you are struggling with anything before you leave a comment, please email me through my profile on CodeCanyon and let me know about the issue, 99.9% I will be able to solve it for you.

And lastly, if you have any great ideas about anything related to music, radio, music players and anything fancy just let me know about it and I will work on it. It will go on CodeCanyon for sale but you will receive it for free! So feel free to email me about your ideas and your ideal music plugins and features. 😊