

JUKEBOX FOR SOURCE

STREAMING MUSIC SYSTEM

INTRODUCTION

Jukebox for Source is a fully featured music streaming plug-in for SourceMod. It is designed to offer a complete solution for server admins who want to enrich their server's character and overall experience and places heavy value on social play. Jukebox uniquely offers a searchable and dynamic interface similar to those of many other music players, such as iTunes and WinAmp.

Jukebox is compatible with all Source engine mods on both Linux and Windows. For admins, Jukebox also includes a web-based suite of tools for uploading and managing your music library.

FEATURES

JUKEBOX FEATURES

- Intuitive, dynamically generated menu-based interface.
 - Browse tracks by genre, artist, album or title.
 - Look up and select from the newest or most popular tracks.
- Command-line interface, including full search capability, for more familiar users.
- Customizable playback behavior available to each client, with automatically saved and restored settings.
- Easily listen to an entire genre, album or any search result using convenient playlist generation and playback.
- Queue up additional tracks at any time.
- Easy-to-read display of track info in synchronization with playlist tracks.
- Admin-reserved ability to play music for everyone on the server.

ADMINISTRATIVE FEATURES

- Easily integrate MP3 tracks from any folder on your website.
 - Currently designed for separate FTP upload prior to track integration.
- Supports batch processing of new tracks. Upload several albums at once!
- Minimizes work in populating track metadata.
 - Automatic ID3 extraction.
 - Make batch changes to album, artist and genre info.
- Browse, preview, edit and delete tracks using the provided library browser.
- Optionally host MP3 files on a low-cost remote server.

- Intended for rental packages which do not include enough bandwidth and storage space for Jukebox.
- Remote file server is automatically managed via FTP.
- Access is controlled and secure.
 - Create user accounts for people you wish to have uploading or administrative access.
 - Identify who is uploading which tracks.
 - Non-administrative users may edit and delete their own additions.
- No risk of leeching.
 - Playback URLs expire due to encrypted timestamp.
 - Stored files have randomized file names, making direct browsing impractical.

REQUIREMENTS

- Website Server
 - PHP 5 or later
 - MySQL 5 or later
- Source Engine Game Server
 - SourceMod 1.3.8 or later
 - Access to same MySQL database as Website Server
- Remote File Server (optional)
 - FTP server
- User requirements
 - Up-to-date Source Engine game or mod
 - Adobe Flash for Other Browsers

VERSION INFO

Current Version: 0.5.5.0

- Completely replaced the music playback system with a new HTML5 and flash-based media player called jPlayer. This new media player will allow Jukebox to work as it did previously within TF2, Counter-Strike and any other Source Engine games and mods that make use of the newer WebKit browser which accompanied the Mac OS updates.
 - **Jukebox now requires all users to have Adobe Flash for Other Browsers installed for music playback to work.** This same version of Flash is required by all users for full functionality within the Steam store. More information may be found here:
https://support.steampowered.com/kb_article.php?ref=8175-XFMJ-5769

Version 0.5.4.2:

- (include/login/constants.php, include/settings.php) Changed document include method to avoid path error observed on many servers.

Version 0.5.4.1:

- (include/login/constants.php, include/settings.php) It is no longer required to populate constants.php with settings. Settings.php has been updated with additional fields.
 - **Existing installations are required to replace settings.php on your server with the new version in the upgrade package.**
- Fixed major error during track change process introduced in previous release.
- Removed log error which reported lack of track info during Playback Menu start.
- Changed new user Options entry sequence to deal with slow SQL query case.
- (Database) Corrected absence in SQL installation script included in 0.5.4.0 so that the default “admin” account is not properly created.
 - Existing installations need not take any special action. This correction does not affect those who took the upgrade path to 0.5.4.0.
- (General admin website) Completed edit of webscript to use full PHP open tag, so that the php.ini setting “short_open_tag” can be left at its default value of false.
- Legacy SQL installation scripts are no longer distributed with Jukebox, to avoid confusion. Refer to the development thread for legacy versions.

Version 0.5.4.0:

- Jukebox is now developed and tested on SourceMod 1.3.1.
 - **This and future releases should be run on a server running SourceMod 1.3.1 or later.**
 - Technical support is not offered for servers which do not run on SourceMod 1.3.1 or later.
- Made several SQL database changes.
 - **Existing installations *must* run the included SQL database upgrade script.** The upgrade to version 0.5.4.0 can be found within the “sql” folder in the website files.
 - Fixed SQL database error so that the “queue” column within “jb_streams” is created with a default value of 0.
 - Revised design of Playback Log to simplify the design of various search operations.
 - Log entries are stored in “jb_log_history”, each containing a “user_id”, “username_id” and “track_id”.
 - Each “user_id” refers to a user entry in the “jb_options” table, which includes the user’s Steam ID.
 - Each “username_id” refers to the Username entry in the “jb_log_usernames” table, which includes the user’s Username observed when he or she connected to the server.
 - Each “track_id” refers to a Track entry in the “jb_tracks” table.
 - In addition to the above, the “jb_log_history” table stores some event data. The “start” column denotes the time at which the listened to track began playing, *not* the time at which the user joined in listening. The “joined” column denotes the amount of time into playback of the track that the user started listening. The “finish” column denotes the amount of time into playback of the track the user ended listening. Entries with a “finish” value of 0 implies that the track is currently being listened to.
 - Removed “jb_log_users” table, replacing its function with the Steam ID data already within “jb_options”.
 - Removed cvar “jb_db_log_users”.
- Restored custom named database feature previously removed in 0.5.3.1, this time corrected to properly connect using connection names other than “default”.

- Restored cvar "jb_db_conn_name" (default = "default"). Named SQL connection to be used by Jukebox. Database must be defined within sourcemod/configs/database.cfg
- **Existing installations *must* add this cvar to jukebox.cfg and specify the named database connection to be used by Jukebox.**
 - For most servers, the value should either be "default" or "jukebox".
- (upload.php) Fixed Jukebox incorrectly type casting the playtime duration from floating point to integer.
 - Previously uploaded MP3s have the playtime stored as a value rounded to the second. **Server admins are strongly advised to run "jukebox_0540_playtime_fix.php" found within the "sql" folder. It must be moved to Jukebox's root folder and run from there.** While not technically required, Jukebox will benefit from a more accurate playtime measurement.
- Server admins can now specify which admin flags grant access to the Public Stream playback, Reserved use and Admin Menu functions.
 - Added new cvar "jb_admin_flags_playall" (default = "jz"). An admin flag string identifying the admin flags that grant Public Stream playback control permissions, or leave blank to grant access to all users.
 - Added new cvar "jb_admin_flags_reserved" (default = "jz"). An admin flag string identifying the admin flags that grant Jukebox operation rights during the 'reserved' state.
 - Added new cvar "jb_admin_flags_settings" (default = "hz"). An admin flag string identifying the admin flags that grant Jukebox Admin Menu access, or leave blank to grant access to all users with general Admin Menu access rights.
 - The admin flag "z" must explicitly be included in order to grant access rights to admins with this "root" admin flag.
 - Refer to the SourceMod Wiki for more information on admin flags:
[http://wiki.alliedmods.net/Adding_Admins_\(SourceMod\)](http://wiki.alliedmods.net/Adding_Admins_(SourceMod))
- The in-chat playback announcement feature can now operate in any one of three different modes.
 - Mode 1 (default): Announce the first track of each Public and Private Stream.
 - Mode 2: Announce the first track of each Private Stream and every track from the Public Stream as they begin playing.
 - Mode 3: Announce every track from all Private and Public Streams.
 - Added new cvar "jb_announce mode" (default = 1). Sets the in-chat playback announcement mode. 0 = no announce, 1 = announce first track of each selection list, 2 = announce every track for Public Stream and only first track for Private Streams, 3 = announce every track for Public and Private Streams.
- Users can now Eavesdrop on the Public Stream without knowing who created it by including the search keyword "public".
 - Usage example: "!eavesdrop public"
- Added "Back" menu operation to search results menus.
- Corrected error during config file reading which caused some settings to be improperly read unless the plugin were loaded twice.
- Improved accuracy of track progression tracking on heavily loaded servers and over map changes.
- Fixed calculated "Last Updated" time to properly correct for time difference between the game and MySQL server clocks.
- If a queued playlist starts during map change, the participating users will be connected to the queued stream after reconnecting to the server.

- (query.php) Fixed minor error which would improperly format MP3 paths in the playlist when the Jukebox path includes uppercase characters.
- (browse.php) Improved Browse page's sorting to properly coordinate target sort column, sort direction and page number.
- (browse.php) Added visualization to the sorting controls to indicate current status.
- (browse.php) Added a "Date Added" column to the Browse page.
- (browse.php, upload.php) Replaced Function text buttons and links with graphical buttons.
- (browse.php, upload.php) Added various Javascript enhancements in order to improve general ease of use and work flow.
- (upload.php) Admins and Uploaders can now delete uploaded items directly from within the Add Tracks page.
- (upload.php) Improved deletion process to allow Windows servers to delete uploaded tracks with spaces in the file name.
- (upload.php) Subfolder objects in the list now display the number of files within the subfolder.
- (upload.php) Tracks selected for addition to the library can be selectively removed during the Edit stage.
- (upload.php) The Add Tracks process will not proceed past the Edit stage until all errors have been cleared.
- (upload.php) Changed how Jukebox determines the local folder path to avoid a rare and unknown false path issue.
- (General admin website) Added display of installed Jukebox version.
- (General admin website) Updated several scripts so that the php.ini setting "short_open_tag" is no longer required to be On.
 - Existing installations are advised to return "short_open_tag" to "Off" if it was previously adjusted.

Version 0.5.3.3:

- Added proper character escape step to SQL queries so that searches involving special characters like ' and " will properly execute.

Version 0.5.3.2:

- Fixed major error which allowed public stream listeners to inadvertently interrupt the public stream with their own music selection.
- Fixed error which caused private streams to be interrupted by the public stream.
- Added additional error checks to manage unusually long SQL query times.

Version 0.5.3.1:

- Included updated SQL database import script and upgrade SQL script, which were inadvertently not included in the previous release.
 - **Existing installations *must* run the included SQL database upgrade script.** The upgrade to version 0.5.3.1 can be found within the "sql" folder in the website files.
- Added new feature: Playback Log. The Playback Log keeps a detailed SQL-based record of who played what music and when. This new feature *only* collects data into the database. No means to browse, manage or publish the data is included at this time, which expectation that end-users can prepare an appropriate interface for their own websites if they so desire.

- Added in 0.5.3.0 and missed in the change log.
- The log is designed to minimize the storage size and, as a result, depends on the use of somewhat complex "JOIN" SQL operations in order to satisfy most query needs.
 - Each unique observed Steam ID is logged in the "jb_log_users" table
 - Each unique observed username is logged in the "jb_log_usernames" table and is associated to its Steam ID entry via the "user_id" column.
 - Each playback event is logged in the "jb_log_history" table and is associated to the listener's username entry via the "username_id" column. It is associated to the target music track in the "jb_tracks" table via the "track_id" column. The "start" column denotes the time at which the listened to track began playing, *not* the time at which the user joined in listening. The "joined" column denotes the amount of time into playback of the track that the user started listening. The "finish" column denotes the amount of time into playback of the track the user ended listening. Entries with a "finish" value of 0 implies that the track is currently being listened to.
 - Query examples and additional support are forthcoming. Feel free to contact SirLamer via the Allied Modders forum for help.
- Changed method of support for custom named SQL database connections in order to correct an issue experienced by many game servers.
 - A custom named connection intended for use by Jukebox *must* be named "jukebox". If this named connection is missing, the default database connection will be used. Either a connection named "jukebox" or the default connection must be properly defined.
 - Removed cvar "jb_db_conn_name".
- Changed stream reconnection feature to be executed when the player first joins a team instead of when the player first spawns.
- Corrected a technical issue related to player spawn/team change event detection which caused stream reconnection to fail on some servers.
- (jukebox.cfg) Corrected example entry "jb_volume_min", which was misspelled.
- (query.php) Corrected minor SQL syntax issue which caused music playback to fail on some servers.

Version 0.5.3.0:

- Added new feature: Jukebox Administrative Menu. Accessed through SourceMod's built-in "sm_admin" command, this new menu provides easy access to full administrative control of Jukebox.
 - Note: The jukebox.cfg file and most other config files are read and reloaded on every map change or when the plugin is reloaded. Any convars defined in these config files will be reset to their specified value regardless of changes made in the Jukebox Admin Menu.
- Revised the appearance of the User Settings Menu to make the current state of each setting clearer.
- Added new cvar "jb_volume_min" (default = 10). The minimum permitted volume setting.
- The Playback Controls Panel now displays the current track's title, play time and total duration.
- Corrected server crash caused by using any of the Play options in the top level of the Browse menu queries by removing access to these options in applicable cases.
- Corrected fault which did not allow users to select later menu items in a very large menu query result.

Version 0.5.2.1:

- Corrected improper functioning of new MOTD work-around feature.

Version 0.5.2.0:

- Added new feature: menu-based Playback Controls. When using the “!jb” command while listening to music, the Playback Controls are automatically presented, along with the option to continue onto selecting new music.
 - Added “Mute / Unmute” feature, which silences music playback while maintaining membership in a music stream. This is useful for “What? I can’t hear you over the music!” scenarios.
 - Added “Volume Up” and “Volume Down” functions, which temporarily adjust the music volume for the duration of one’s music stream membership. This is useful when a song is louder or quieter than normal. The user’s personal Volume setting is restored for the next music stream.
 - Added menu-based “Stop Playback” function.
- Added new feature: Music queuing. Users have the option to queue track selections behind music they are listening to. Queued music will seamlessly integrate into the music stream.
 - Normal users can only queue music to their own streams.
 - Any admin can queue music to the play-to-all stream (now called the “public” stream). There is only one public stream active at a time.
 - Added new user setting, “Enable / Disable automatic queuing”. When enabled, selected tracks will automatically be queued to follow the current music stream whenever possible. If not allowed or not appropriate, selected music will begin playing immediately.
 - Added new cvar “jb_queue_default” (default = 0). Default setting for automatic queuing.
 - Note: All users who have already visited your server prior to this update will find this feature is disabled regardless of this cvar’s value.
- Jukebox can now restore the music stream for users after being disconnected by the Message of the Day display.
 - Added new cvar “jb_motd_restart” (default = 0). Enables automatic rejoining of a user’s music stream after being disconnected by the MOTD display.
 - Note: Jukebox cannot detect whether or not your MOTD is cutting off Jukebox. If your MOTD features HTML code, enable this cvar. Otherwise, leave it disabled.
- (include/rc4.inc) Merged the function used from the RC4 library into Jukebox so that it will compile in the SourceMod forums.
- Corrected minor “out-of-bounds” error which would result when streams end after several streams are played.
- Attempted correction of minor “divide by zero” of unknown origin.
- Removed “!mute” alias command for “!jboff”, as it was found to also be used by a stock administrative plugin.
- Removed optional “!radio” and “!radiooff” alias commands, as the new Playback Controls feature supersedes any benefit from supporting these commands.
 - Removed cvar “jb_enable_radio_cmd”.
- (include/security.php) Restored version originally introduced in version 0.4.0.0 due to the same section of script causing different parsing problems for some users.
- (include/security.php) Removed invitation to register from the sign-in form.

Version 0.5.1.1:

- Improved the visibility of Jukebox-generated chat box output using an iconic color [JB] label.
 - Added in 0.5.1.0 and missed in the change log.

- All error messages are now reported through the SourceMod error log instead of the executing user's console.
 - Added in 0.5.1.0 and missed in the change log.
- Corrected major design fault in previous release which prevented the menu system from working.
- Corrected error introduced in previous release which broke the Eavesdrop function.

Version 0.5.1.0:

- Jukebox operation can now be reserved for server admins only. While public users cannot search and start listening to their own music, admins can still use the "-all" command to play music for the whole community, and users can still stop playback with "!jboff" and control their personal settings.
 - Revised cvar "jb_enabled". In addition to previous functionality, when jb_enabled is set to 2, Jukebox operation is restricted to server admins with the Admin_Chat flag.
- Revised how the track play count and popularity rating are calculated. Instead of adding playback stats at the start of each track or whenever anyone joins in on a stream, Jukebox will instead review who is still listening at the end of each track. This prevents quickly abandoned music streams from being unduly promoted.
- Reduced the value of an Eavesdrop operation in the popularity calculation to half the value of directly selecting a song to play.
- The SQL connection and all SQL queries are now threaded from the main game process, eliminating the lag spike issue experienced by servers operating with aggressive performance settings. This also improves server stability in the potential scenario where the SQL server is unavailable.
- Implemented some small process-based performance optimizations.
- (remote_transfer.php) Corrected error introduced in last update that caused the Remote Transfer script to no longer work.

Version 0.5.0.0:

- Made several changes to Jukebox's SQL database structure.
 - Merged the "jb_remote_server" table into jb_tracks.
 - Removed the deprecated "latest_time" column from jb_tracks.
 - Converted the MD5 hashes from binary storage to a hexadecimal string, for easier reading and editing.
 - Increased the precision of the saved playtimes in order to improve the accuracy of the playlist progression operations.
 - Included in this release is an upgrade script "jukebox_sql_upgrade_0320_to_0500.php". It will apply the database changes and, most importantly, re-calculate the playtimes with greater precision.
 - Place the script in your root Jukebox web folder, then run it from your web browser. The script will take awhile to run. My server, with 1000+ songs on a Remote File Server, took about an hour to upgrade. A setup with all the tracks still on the local server will take a few minutes. During this time, most web browsers will display nothing.
 - Let it finish, and make sure it tells you "upgrade script complete" at the end. If not, run it again and let it try to finish.
 - When it is done, **delete the upgrade script from your web server.**
- Added alias command "!mute" for "!jboff", based on observed guesses on how to turn off Jukebox.

- Added in 0.4.2.0 and missed in change log.
- Added optional alias commands "!radio" and "!radiooff" for "!jb" and "!jboff", respectively, after observing new users guessing these commands . They are disabled by default.
 - Added new cvar "jb_enable_radio_cmd" (default = 0). Enables support for alias "!radio" and "!radiooff" commands. Do not enable support for this command if you run the Radio plugin in addition to Jukebox.
- Added new feature that invites users to adjust their personal playback settings after repeatedly halting playback of play-to-all streams.
 - Added new cvar "jb_monitor_jboff_use" (default = 3). The number of times the user must cancel a play-to-all song to be automatically reminded and invited to adjust personal playback settings. Set to 0 to disable.
- Added new feature that integrates connecting users into any play-to-all stream in progress.
 - Added new cvar "jb_playall_on_connect" (default = 1). When enabled, connecting new players will be merged into the latest active play-to-all stream.
- Improved Eavesdropping so that the target user or stream creator is notified when somebody begins eavesdropping on his or her music selection.
- Improved the behavior of the track info display when the user rapidly plays multiple songs in succession so that the track info does not overlap.
- (browse.php) Fixed error preventing track deletion from the Remote Filter Server that was caused by changes made in version 0.4.0.0.
- (query.php, jukebox.sp) Removed developmental debugging info accidentally left in the release build.
- Further improvements to execution efficiency when a user prepares a new playlist.
- (upload.php) Revised the method that the MD5 checksum hash is determined, as an error-preventative measure on some systems.

Version 0.4.2.0:

- Improved the "last updated" info in the Newest Tracks menu selection to update for every display instance instead of upon map change.
- Added feedback message when a query returns no results.
- Added "Back" option to most sub-context menus.
- Added a new feature which allows Jukebox to begin playing a song starting from any point in the track, improving the usability of the Volume Setting and Eavesdrop features.
- Added a new advertisement feature. When enabled, Jukebox will display a self-promoting advertisement announcing the availability of Jukebox on the server. By default, this advertisement is disabled.
 - Added new cvar "jb_advertisement" (default = 0). The number of seconds after first spawning to display the Jukebox advertisement, or set to 0 to not display the advertisement.
- Fixed error where a !jb command that does not expect an input value causes any subsequent command to be ignored.
- Overcame a technical limitation which prevented playlists larger than about 20 tracks from playing. The playlist length is now technically unlimited, but is currently limited to 100 tracks. Admins can easily change this by adjusting the PLAYLIST_MAX constant in jukebox.sp and query.php.
- Made significant improvements in Jukebox's performance in terms of CPU activity, particularly whenever a user begins music playback.
 - Shifted look-up of track sequence from the game server plugin to the web server's playback script.

- Changed anti-leech key from Base64 to hexadecimal encoding, removing the complex Base64 encoding step.
- Mid-track start of playback allowed some logic simplification at various points.
- (browse.php) Added Track Details function.
- (query.php) Improved the volume setting so that it properly linearly scales with the user's volume setting.

Version 0.4.1.1:

- (query.php) Fixed a major error where incorrect paths to tracks stored on the Website Server were being generated for the playlist. Though not affecting the Remote File Server, this was preventing the majority of setups from working.
- (query.php) Made changes to reduce the likelihood of setup error.
- (include/settings.php) Removed deprecated settings values `$root_url` and `$root_folder`.
 - The new settings.php is included in the zip file separately from its proper path, in order to avoid overwriting the existing settings file.
 - The old settings.php works just fine and does not need to be changed or replaced if you don't want to.

Version 0.4.1.0:

- Fixed logic error in the title display sequence.
- Improved error catching during MySQL database connection preparation.
- (browse.php) Improved user class-based security at several points.
- (browse.php) Fixed Edit Track issue that was preventing changes from being saved.
- (browse.php) Added "Change settings for all users" function to the Edit Tracks operation.
- (include/security.php) Restored previous version, which made no difference to reported errors.

Version 0.4.0.0:

- First official release.
- Fixed crash that would occasionally occur during map change if bots or any other fake clients, such as SourceTV, were present on the server.
- Corrected command line parsing of the !jb function so that it can properly differentiate between hyphenated search terms such as "g-man" and special commands.
- Fixed several minor and practically harmless errors.
- (query.php, upload.php, remote_transfer.php) Changed Remote File Server so that it no longer expects a "tracks" subfolder from the base working folder to save the tracks in.
 - If you have already set up a Remote File Server prior to 0.4.0.0, please move all of the folders within the "tracks" folder to its root folder. Note, this applies *only* to the Remote File Server and does not apply to the local storage space on your Website Server.
- (upload.php) Added automatic background execution of the Remote Transfer script when Remote File Server is enabled.
- (include/security.php) Made adjustments to login script to correct improper parsing on some systems.

Version 0.3.6.0:

- Revised configuration file system to conform with system more commonly used by other plugins.

- Config file is now stored at mod_folder/cfg/sourcemod/jukebox.cfg.
- If the config file is not found when Jukebox is started, it will automatically be created. Similarly, future cvars added to Jukebox will automatically be edited into your custom config file.
- The old config file, found at mod_folder/addons/sourcemod/configs/jukebox.cfg, is no longer in use. It can be deleted but it is safe to leave there.
- Existing Jukebox users should update jukebox.smx to the latest version and restart it. Then, go to the created config file and update base_url and leech_password with the correct values for your server.
- Fixed significant playback stability error which prevented playback if anyone is in the process of connecting to the server or if a non-player bot (such as SourceTV) is occupying a client slot.
- Corrected error in Eavesdrop function which prevented it from working the majority of the time.
- (query.php) Removed track info (title, artist, album) from playlist generation, as it is not being put to use.

Version 0.3.5.0:

- Fixed bug that sometimes prevented playback on a busy server.
- Corrected playback handling when changing volume while music is playing.
- Added contingency for properly and safely handling case where the MySQL database is down or the connection credentials are improperly defined.
- Restored Eavesdrop functionality.

Version 0.3.4.0:

- Fixed loss of “!jb” / “!jukebox” functionality between map changes.
- Fixed chat announce of selected tracks confusing artist and album info.
- Fixed user tracking and stream restoration across map changes and other disconnect/reconnections.
- Removed some diagnostic functions.

Version 0.3.3.1:

- Restored functionality to Upload Tracks website feature.
- Restored functionality to Create New User feature.

Version 0.3.3.0:

- Added support for non-default SourceMod database connections.

Version 0.3.2.1:

- Added “getID3” library functions to the Website Server, which were missing in the previous release.
- Corrected small interface error on the “My Account” page of the Website Server (userinfo.php), where an out of date hyperlink led to a non-existent page.
- Updated Game Server Installation help section of this document with details regarding MySQL setup in SourceMod.

SETUP

This section details the first-time setup procedure for server administrators.

WEBSITE SERVER

INSTALLATION

- Prepare a web folder for the Jukebox software.
 - Take note of the public URL to the folder; this will be the path used to access Jukebox's web interface, and will have to be provided to Jukebox on the game server.
- Copy all of the files and folders within the "website" folder of this package to the folder you created.
- **Windows web servers require** some additional "helper apps" for the track upload process.
 - Download the latest release:
<http://sourceforge.net/projects/getid3/files/getID3%28%29%20Windows%20Support/>
 - Copy the "helperapps" folder and all of its contents into jukebox's /include/ subfolder.
- Some folders are required to have write access by the PHP script. For example, a CHMOD code of 664 will ensure write access with most web hosts. Ensure the following folders are writable:
 - playlists
 - temp
 - tracks
 - uploads
- Import the SQL query found in the "sql" subfolder into your MySQL database.
 - (Optional) It is advised to create a built-for-purpose database user that has full read-write access but no administrative privileges and can only access the tables created for Jukebox.
 - Open and populate the configuration file "include/settings.php".

FIRST USER ACCOUNT

- Within a web browser, browse to the URL where you placed the Jukebox software.
- Jukebox will prompt you to log in. Login with the default user account:
 - Username: admin
 - Password: admin
- This default account has full administrative access. For security reasons, it is very important you remove this default account.
 - In Admin Center, create a user account for yourself.
 - Again in Admin Center, change the User Level of the new account to Admin.
 - Log out and then back in with the new account.
 - Use the new account to delete the default "admin" account.

REMOTE FILE SERVER

This optional feature allows you to have uploaded tracks automatically moved to and served off of a separate Remote File Server. This is useful in a cost-optimized scenario where your PHP- and MySQL-running website server cannot support the high data transfer demands of Jukebox and you want to rent a cheap low service but high volume file server to store and serve the music tracks. Setting this up is pretty straightforward.

- Prepare a Remote File Server with FTP access and online connectivity using either a URL or fixed IP address.

- Set up an FTP account for the Remote File Server with a root folder that is web accessible.
- Edit the Remote File Server section of include/settings.php on the Website Server to include the FTP account login info and web address to the Remote File Server.

GAME SERVER

INSTALLATION

- Jukebox is a very large and complex plugin and is in beta stages. Due to the higher risk of instability associated with such a program, ensure SourceMod is installed correctly and is running stable with your current library of plugins before attempting to run Jukebox. This will assist everyone with diagnosing and closing configuration errors and software bugs.
- Copy the “addons” folder found within the “game server” folder of this package to your mod’s main folder so that the provided files are merged with the addons folder on your game server.
- If you have not already done so for another plugin, set up your MySQL database connection at the following location:
 - /addons/sourcemod/configs/databases.cfg
 - Make sure “driver_default” = “mysql”. Jukebox does not support SQLite.
 - Either use the “default” connection or set up a new connection with your own name.
 - driver = “mysql”
 - The “host” address is usually “localhost” but this is not always the case. Check with your server renter for information.
 - If renting, then “database” and “user” are usually provided by your renter, with the option to set your own password (“pass”).
- Complete only one of the next two steps:
 - Run Jukebox on your server so that it may generate the config file, OR;
 - Copy the provided default jukebox.cfg file into /cfg/sourcemod/.
- Populate the configuration file found at the following location:
 - /cfg/sourcemod/jukebox.cfg
 - “base_url” must be populated with the URL path to Jukebox’s base folder on your web server.
 - “leech_password” must *exactly* match the “\$leech_pass” value you specified in settings.php for the website software.
 - Enable “jb_motd_restart” if your server features an HTML-based Message of the Day display.
 - All other settings can be revised, but the default values are appropriate for most users.
- Either restart your game server or use SourceMod commands to refresh your plugins or load jukebox.smx.
- If you know how, review your SourceMod plugins to make sure Jukebox loaded. If not, review the error log.
- If your Message of the Day (MOTD) includes any HTML code, it will be rendered using the same HTML engine that Jukebox uses to play music. If users are listening to music across a map change, the MOTD will interrupt playback. You can avoid this by writing the MOTD using only simple text and no HTML code. Note that Jukebox continues to properly track and manage music playback for users across map changes and other client disconnection scenarios.

EARLY TESTING

After the plugin is loaded, you can quickly test its success before uploading any songs. Type the command “!jb” in chat to test that the plugin loaded. If a selection menu appears, then Jukebox loaded successfully and was able to connect to your MySQL database. If it does not work, check the Console for errors.

BUILDING YOUR LIBRARY

This section details how to add music tracks to your library.

UPLOAD NEW TRACKS

- Upload MP3 files via FTP to the “uploads” folder specified during startup.
 - By default, this is “uploads” subfolder created with the default install.
 - If you are providing upload access to other users, you are advised to create a special FTP account for each user with access fixed only to the uploads folder.
 - You can create subfolders within the Uploads folder and organize songs into them. Within Jukebox you can browse into subfolders and process tracks into your library in batch groups. This is useful for organizing multiple albums and processing them into your library.
- Browse to your Jukebox webpage. After logging in, click “Add New Tracks”.
- Use the interface to either browse into subfolders or select one or more tracks for processing into the library.
- The next screen will allow you to edit the metadata for tracks.
 - Jukebox attempts to read as much information as possible from the files, but sometimes the metadata is missing or incorrect and requires correction.
 - If all the tracks in this batch are from the same album, artist or genre, then you can easily make changes to the entire batch of tracks by scrolling to the bottom of the form.
 - Jukebox protects your library from multiple identical entries. If an existing library track is digitally identical to a newly submitted one, it will not be allowed. If submitted track metadata is similar to any existing library tracks, the new metadata will have to be revised in order to be allowed.
- The final screen will ask you to review and confirm the provided metadata.
 - In order to maintain a clean, manageable library as your collection grows, you are strongly advised to ensure that every single track has a full set of clear metadata submitted with it.

MANAGE YOUR LIBRARY

While logged into your Jukebox webpage, click “Browse”. You can use this page to manage your library.

- Click a track title to listen to it.
- Use the Details function to review additional information, such as its submission date, its uploader and the popularity of the track on your server.
- Use the Edit function to change the track’s metadata.
- Use the Delete function to remove a track.
- Select one or multiple tracks and use the form buttons at the top or bottom of the list to batch process tracks.

HOW TO USE JUKEBOX

CONVARS

- **jb_admin_flags_playall** (default: "jz") – An admin flag string identifying the admin flags that grant Public Stream playback control permissions, or leave blank to grant access to all users.
- **jb_admin_flags_reserved** (default: "jz") – An admin flag string identifying the admin flags that grant Jukebox operation rights during the 'reserved' state.
- **jb_admin_flags_settings** (default: "hz") – An admin flag string identifying the admin flags that grant Jukebox Admin Menu access, or leave blank to grant access to all users with general Admin Menu access rights.
- **jb_advertisement** (default: 0) – The number of seconds after first spawning to display the Jukebox advertisement, or set to 0 to not display the advertisement.
- **jb_announce_mode** (default: 1) – Sets the in-chat playback announcement mode. 0 = no announce, 1 = announce first track of each selection list, 2 = announce every track for Public Stream and only first track for Private Streams, 3 = announce every track for Public and Private Streams.
- **jb_base_url** (default: "") – URL path to Jukebox's base folder.
- **jb_db_conn_name** (default: "default") – Named SQL connection to be used by Jukebox. Database must be defined within sourcemod/configs/database.cfg
- **jb_db_log_history** (default: "jb_log_history") – SQL table name for the Log History table.
- **jb_db_log_usernames** (default: "jb_log_usernames") – SQL table name for the Log Usernames table.
- **jb_db_options** (default: "jb_options") – SQL table name for the Options table.
- **jb_db_playlists** (default: "jb_stream_tracks") – SQL table name for the Playlists table.
- **jb_db_streams** (default: "jb_streams") – SQL table name for the Streams table.
- **jb_db_tracks** (default: "jb_tracks") – SQL table name for the Tracks table.
- **jb_enabled** (default: 1) – Set to 0 to disable Jukebox, 1 to enable Jukebox for all users, 2 to reserve Jukebox operations for admins.
- **jb_leech_password** (default: "") – Anti-leech password used to timestamp produced URLs. Must match the leech password specified on the web server.
- **jb_log_use** (default: 0) – Enables playback logging.
- **jb_monitor_jboff_use** (default: 3) – The number of times the user must cancel a play-to-all song to be automatically reminded and invited to adjust personal playback settings. Set to 0 to disable.
- **jb_motd_restart** (default: 0) – When enabled, users will be reconnected to their music stream after being interrupted by an HTML-based Message of the Day.
- **jb_playall_default** (default: 1) – Default setting for if clients should comply with 'play all' command.
- **jb_playall_on_connect** (default: 1) – When enabled, connecting new players will be merged into the latest active play-to-all stream.
- **jb_popularity_decay_interval** (default: 86400) – The interval time between popularity decay events, in seconds.
- **jb_popularity_decay_rate** (default: 5) – Percentage rate of decay of popularity scores per interval time.
- **jb_queue_default** (default: 0) – Default setting for automatic music queuing.
- **jb_reserved** (default: 0) – Reserves Jukebox operation for admins.
- **jb_volume_default** (default: 80) – Default playback volume for new users.
- **jb_volume_loud** (default: 20) – Volume boost for 'loud' playback.

- **jb_volume_min** (default: 10) – The minimum permitted volume setting, as a percentage of maximum volume.
- **jb_volume_soft** (default: -20) – Volume reduction for ‘soft’ playback.

COMMANDS

- **sm_jukebox** – Invokes the Jukebox music system.
- **sm_jb** – Shorthand alias for sm_jukebox.
- **sm_jboff** – Stop music playback.
- **sm_jballoff** – (Admin reserved) Stop music playback for all players.
- **sm_eavesdrop** – Use: sm_eavesdrop <username>. Join the most recently started music stream, or a particular player’s stream, if named.
- **sm_volume** – Use: sm_volume <value>. Stores a playback volume level from 1 to 100%.

OPERATION

In chat, say “!jukebox” or “!jb” to invoke Jukebox’s main user menu.

Jukebox includes an online user manual. It is accessible from within the game from Jukebox’s main menu. You can also review it at the following location:

<http://www.teamcheesus.com/user-manual/jukebox>

The user manual is currently in development and is a bit disorganized but includes all you need to know.

FEEDBACK

This is a beta release of Jukebox, which is still in development. All forms of feedback are appreciated and will be incorporated into future builds.

REPORTING BUGS

The purpose of this beta release is to gather bug-reporting feedback from multiple servers. Progress on Jukebox depends on bug reports.

When reporting a bug, provide an appropriately detailed description of the symptoms and the sequence of events that led to it. Specify if the problem is being experienced on the game server, the web server or both. Also check the console for errors when attempting to invoke Jukebox commands.

Include details on the server machine displaying the bug, such as your SourceMod version, game server OS, web server OS, PHP and MySQL version, etc.

Submit bug reports to the official Jukebox for Source forum thread (<http://forums.alliedmods.net/showthread.php?t=104827>).

GENERAL FEEDBACK

Please submit all feedback to the official Jukebox for Source forum thread (<http://forums.alliedmods.net/showthread.php?t=104827>). Your comments will be reviewed by SirLamer on the next day. Please register with the Allied Modders forum (the official SourceMod community board) at <http://forums.alliedmods.net> to gain access.

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 - Team CHEESUS website: <http://www.teamcheesus.com>
- “PHP Login System with Admin Features”, by Jpmaster77 (<http://www.evolt.org/node/60384>).
- “jPlayer” HTML 5 media player (<http://www.jplayer.org/>).
 - jPlayer itself makes extensive use of the jQuery library (<http://www.jquery.com>).
- “getID3()” project (<http://getid3.sourceforge.net/>).
- RC4 Cipher PHP class (<http://www.phpclasses.org/browse/file/25139.html>).
- “RC4 Encryption” SourceMod function, by raydan (<http://forums.alliedmods.net/showthread.php?t=69349>).
 - Modified for easier use and support for binary data. See rc4.inc.
- The SourceMod community and the Allied Modders forum, for providing a rich history of programming examples and for answering many of my questions as I learned the SourceMod language.