



ZaraStudio

Radio Automation Software

Version 4

User manual

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1. Introduction to ZaraStudio

ZaraStudio is an automation system for playing and managing the audio of a radio station, though it can also be used in any other scenario with similar requirements.

It is designed with small and medium-sized radio stations in mind, but it can also be used in larger stations without any problems. Broadcasting programs at specific times or selecting random music are tasks that ZaraStudio handles easily. With it, you can automate your station for long periods, such as during the summer. Additionally, if your station is affiliated with a radio network, you can automate local disconnections for ads, provided that the 'main station' uses a telecommand system, either through contacts on the computer's parallel port or through DTMF tones.

In contrast to other programs, ZaraStudio does not rely on a database or a server to function. It also doesn't require special sound cards, as it works with any Windows-compatible card. However, it is recommended to use professional sound cards to achieve optimal audio quality.

Furthermore, ZaraStudio requires minimal resources and can run on basic hardware. It is designed to be used on Windows 10 or 11.

2. The first execution

If you plan to use the parallel port contact closure detection feature, you will have to run ZaraStudio as administrator the first time. This is due to the fact that the application needs to install a driver on the system that allows it to access to the parallel port pins. To do that, just right click on ZaraStudio icon and select **Run as administrator**.

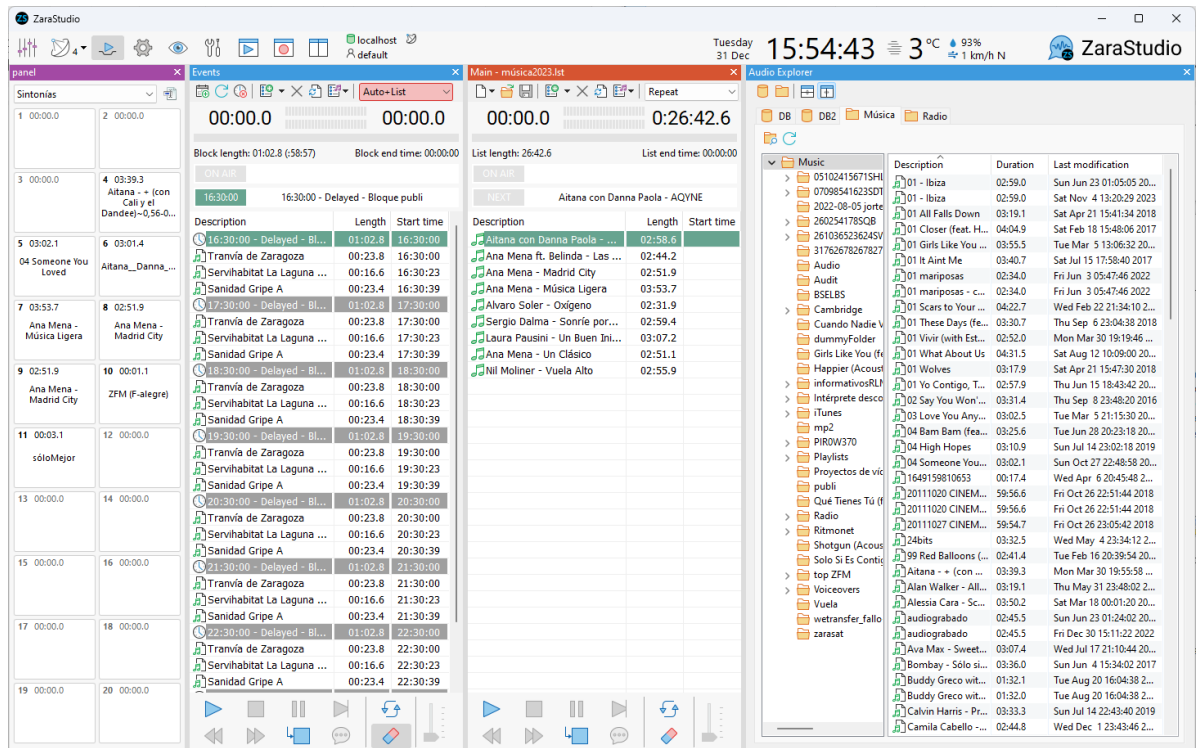
Moreover, it is advisable to keep the operating system as "clean" as possible, regarding installed software. This way, the PC will be faster and ZaraStudio more stable. Besides, it might be a good practice to avoid using the computer for other purposes, such as browsing the web.

2.1. *Default user*

When executing the application the first time, you will see that some features are disabled. This is because the system opens with a limited user account by default. In order to be able to use all the modules, go to **Tools > Change user** and access with the administrator account, whose user name and password is "admin".

3. The main window

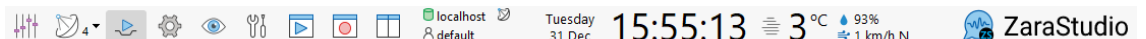
ZaraStudio main window looks like this:



All the panels of the window can be moved and anchored in the position you prefer, except the Events and indicators one. To do that, click with the left mouse button on the top title bar of a panel and, without releasing the mouse button, move it around the different window areas. You will see that some blue boxes will appear. If you release the mouse button, the panel will be anchored at the position marked by the blue box. This way, you can customize the look of ZaraStudio, to fit your needs and work more comfortably. You can also hide or show some parts of the window from the **View** menu, to have more space on low screen resolutions.

The main window is divided in several parts:

- Button bar



It allows you to access to several features of the program. Besides, it displays the date and the time and, optionally, the temperature and humidity. For more information, see section 4.

- Players

The players are the most important part of ZaraStudio. They are the main tool for audio playing, either manually or automatically.

- Audio explorer

This window enables you to manage your station audio archive, which can be stored in a database or, directly, in the folder structure of your hard drive.

4. The buttons bar

The buttons bar gives you access to the following functions:



Opens the sound mixer application set in the options dialog (normally, the default Windows mixer).



Mutes or enables the sound card line in port specified set as 'Channel 1' in the options dialog. When it is pressed, it rebroadcasts the audio in the line in port.



Enables or disables voice tracking. When it is disabled, voice tracking files are not played.



Opens the options dialog.



Gives access to the "View" menu, which allows you to show or hide several application items, as the full file paths in the players, the audio palette, the weather information or the headers in the playlists. Besides, there is an option to display the application in full screen. You can also change the font used in the playlists.



Gives access to the "Tools" menu, which allows you to access to the auditor, the sweepers editor, the schedule editor, the user management window or the options dialog.



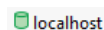
Allows you to open or close several playback windows: the main player, the events player, the auxiliary players and the audio explorer.



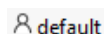
Opens the recording tool.



Arranges the application windows.



It displays the name of the database server to which the application is connected. If the connection fails, the icon will change to red.



Name of the active user in the application.

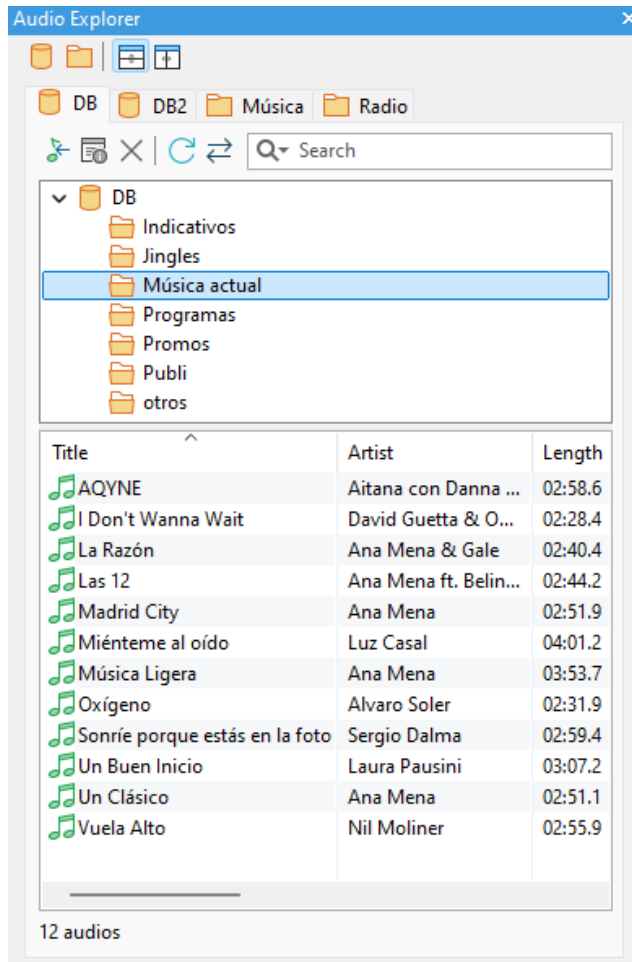


This icon is displayed when there is an active telecommand. Additionally, after each telecommand is received, it shows the time and type of the received telecommand.

5. The audio explorer

The audio explorer is the tools that enables you to manage all your audio archive and classify it according to the desired criteria. Besides, it allows you to load audios in the players by means of "drag-and-drop".

It looks like this:



The tool bar allows you to access to the following functions:

-  Enables you to create, edit and remove database audio sources, which will be explained later.
-  Enables you to create, edit and remove disk audio sources, which will be explained later.
-  Displays the folder structure on top of the audio list. This option is useful with low resolution screens.
-  Displays the folder structure at the left of the audio list. This option is useful with wide screens.

5.1. Audio sources

In ZaraStudio, an audio source is a repository of audio files. In the audio explorer, each audio source corresponds to a tab. There are two types of audio sources: database audio sources (represented by the icon ) and disk audio sources (represented by the icon ). Let's assume an audio explorer that looks like this:



We would have four audio sources in this case: two database audio sources (**DB** and **DB 2**) and two disk audio sources (**Music** and **Radio**).

5.2. Database audio sources

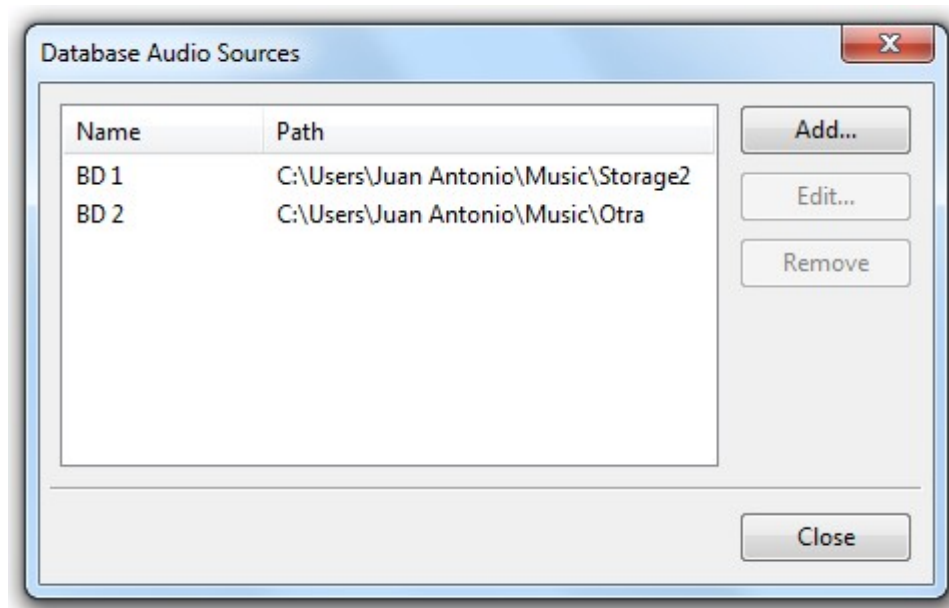
A database audio source is that, as its name suggests, it is managed through ZaraStudio's database, allowing you to add specific information about each audio and assign a number of marks.

Note that the database only stores the audio list and their associated properties (title, player, marks,...). The actual audio files are stored in a standard system folder specific for each audio source, which can be located in the PC hard drive or in a network shared folder.

This audio source type is specifically recommended to manage the station music catalog, as well as audios that will be used frequently.

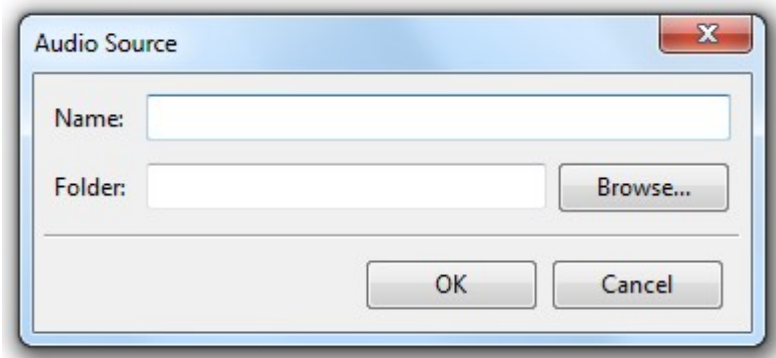
5.2.1. Create, edit and delete audio sources

In order to create, modify or delete these audio sources, you have to press the button  in the explorer tool bar. Doing that will open this window:



As you can see, it shows a list with all the available audio sources, as well as the location where their audio files are stored.

To create a new audio source, just press the **Add** button, which opens the following dialog:



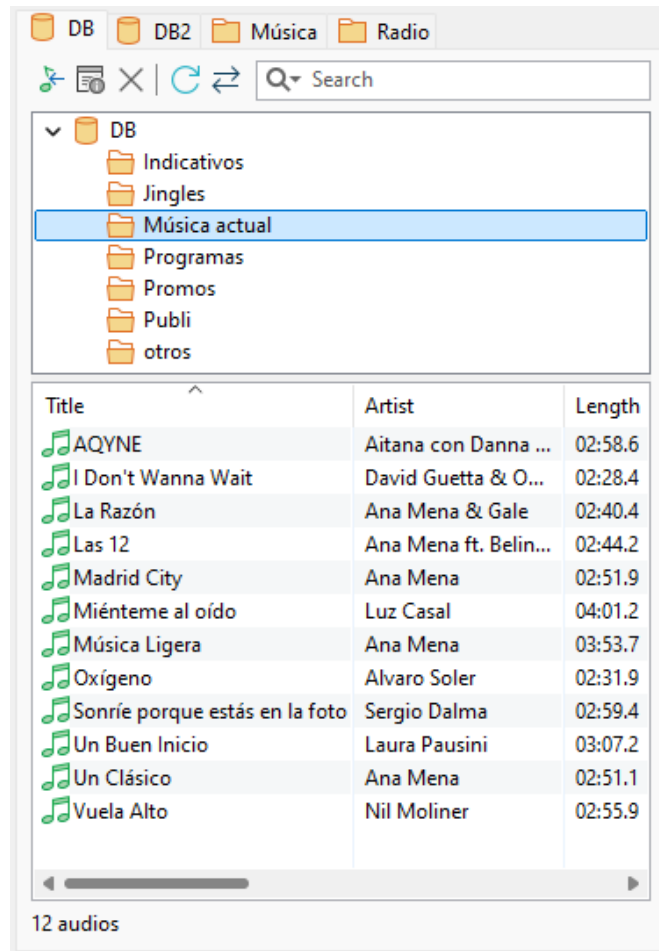
There, you have to type the name of the audio source, which will appear in the explorer tab, and the local or network folder where the audio files will be stored. In case you have several network terminals, we advise you to choose a network folder, as otherwise you will not be able to access to the audios from other computers.

Going back to the previous window, the Edit button opens the same dialog as the Add one to modify an existing audio source. Note that if you change the folder location, all the already created audio files will no longer be accesible.

The Remove button deletes an existing audio source, though, as a precaution, does not physically delete the audio files.

5.2.2. Window controls

A database audio source looks like this in the explorer:



It contains the following elements:

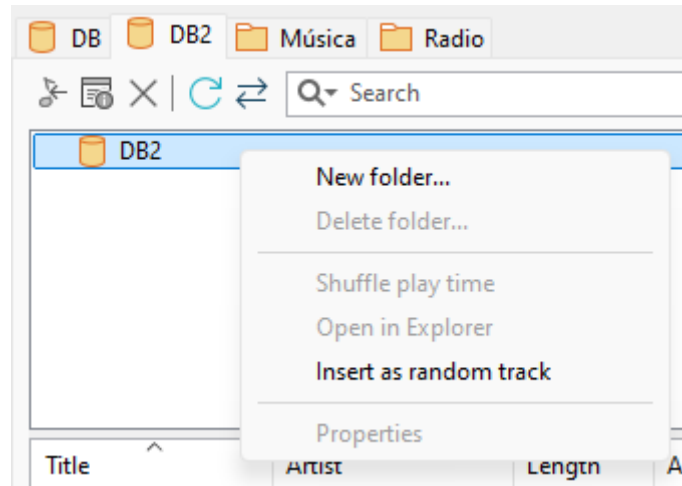
- A tool bar, which allows you to import audios, modify their properties, delete them and update their content.
- A search field, which enables you to look for a specific audio.
- A folder tree, which categorizes the audios.
- A list with the audios contained in the selected folder.

In more detail, the tool bar has the following buttons:

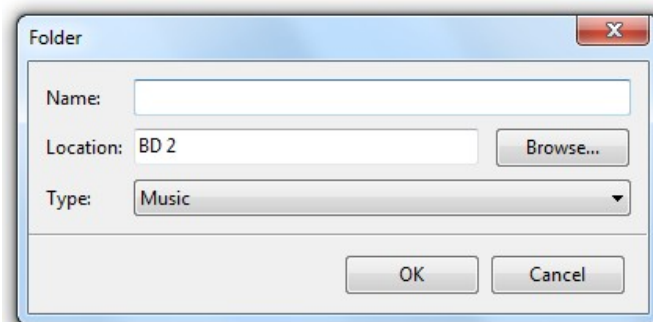
-  Imports new audio files to the source.
-  Edits the properties of the selected audio.
-  Remove the selected audio, as well as its associated file.
-  Updates the contents of the audio source, displaying the changes made from other terminals. This button should not be necessary, as ZaraStudio automatically detects changes and refreshes the audio sources when needed.
-  Syncs the database folder with the associated Windows folder, adding all new files and deleting those that no longer exist.

5.2.3. Folder creation

Before adding audios to the database, you have to create at least one folder. To do that, right-click on the audio source tree root element, and choose **New folder...** in the context menu.



Doing that will open this window:



There, you will have to fill out the following folder attributes:

- **Name:** the name of the folder, which will be shown in the folder tree.
- **Location:** the name of the folder which will contain the one that is being created, that is, the parent folder. To choose a folder, press the **Browse...** button.
- **Type:** allows you to assign a type to the folder depending on the audios you plan to add. Therefore, all the newly created audios in this folder will have, by default, that audio type.

Once you have filled out those fields, press **OK** and the folder will appear in the audio explorer.

From the context menu, you can also access to the following functions:

- **Delete folder:** deletes an existing folder, as well as all its audios.

- Shuffle play time: resets all the audios last play date and time. This is useful to modify the rotation of this folder when using random tracks, specially if you use a low random level.
- Properties: allows you to view and modify the attributes of an already created folder.

5.2.4. Audio import

The audio import is the process that allows you to add new audios to the database. It can be made in two different ways:

- By pressing the button  in the tool bar. Doing that, opens a dialog to choose the audios to import. You can select several files at a time using the **Ctrl** and **Shift** keys.
- By dragging files from the Windows explorer to the audio list.

Following either steps, the audio file is automatically copied to that folder assigned to the audio source and added to the database with default properties, which can be configured through the Options > Explorer window.

That way, if ZaraStudio is configured to read the audio files tags, the title, author, album, composer, genre and year fields will be filled out automatically, as long as those data are included in the tags. Otherwise, the file name will be interpreted as "Author - Title". If the file is not named following that convention, the whole name will be used as title.

Besides, in case you have configured this in the Options dialog, ZaraStudio will try to automatically detect the start, end and mix marks. If this option is not enabled, the marks will be read from the file name (using the ~ symbol, as explained previously).

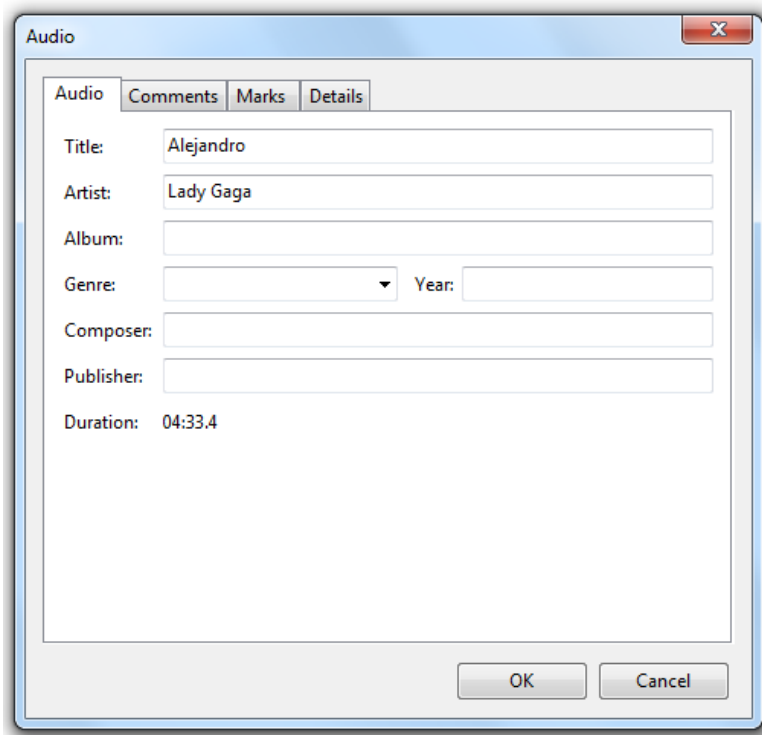
5.2.5. Audio properties

To access to a specific audio properties, just double-click over it or select it and press the button  in the tool bar.

The properties window will display specific data depending on the audio type. The data is grouped in several tabs.

5.2.5.1. Audio

The **Audio** tab enables you to enter the basic properties of a music track, like its title, author, album...



The screenshot shows a window titled "Audio" with a close button (X) in the top right corner. Inside the window, there are four tabs: "Audio", "Comments", "Marks", and "Details". The "Audio" tab is selected. Below the tabs, there are several input fields and a dropdown menu:

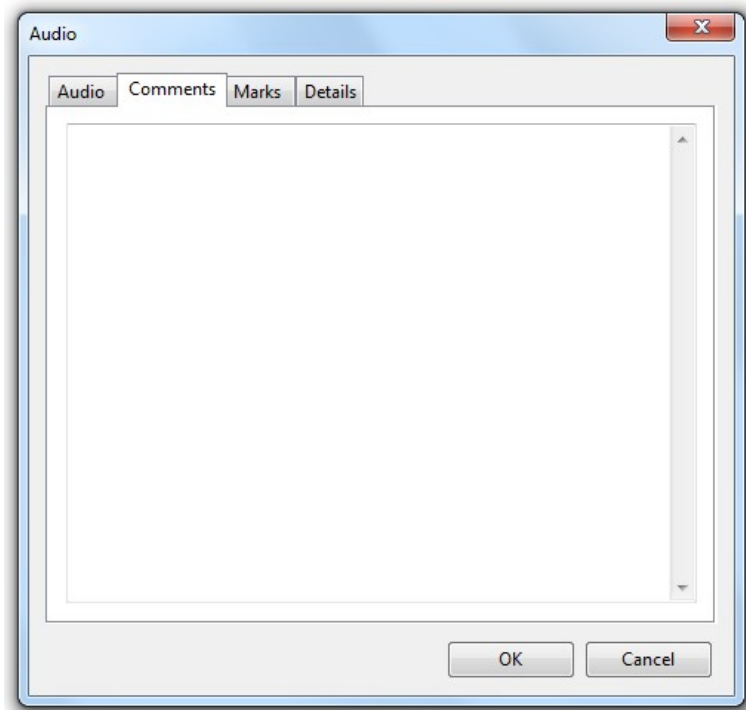
- Title: Alejandro
- Artist: Lady Gaga
- Album: (empty)
- Genre: (dropdown menu)
- Year: (empty)
- Composer: (empty)
- Publisher: (empty)
- Duration: 04:33.4

At the bottom right of the window, there are two buttons: "OK" and "Cancel".

You have to pay special attention to the **Artist** field, as it will be used in random music programmings to separate tracks from the same Artist.

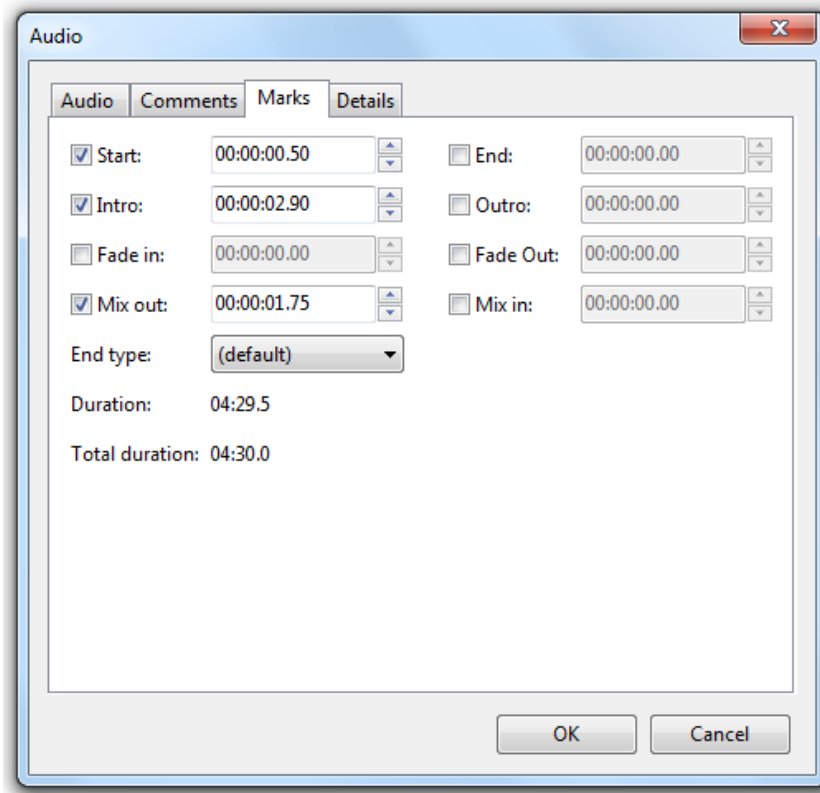
5.2.5.2. Comments

It allows you to associate a long text with the audio, like, for example, a suggestion to present a song by a DJ.



5.2.5.3. Marks

Apart from the marks that have been historically supported in the file name, audios stored in the database support an additional set of marks. They are accessed through the audio properties, selecting the Marks tab.



They are the following:

- **Start:** point where playback will start. It is useful to skip silence at the beginning of a file.
- **End:** point where playback will stop. As with the previous mark, it is useful to skip silence at the end of the file.
- **Intro:** point where the interpreter starts to sing, in case of music audios. It can also be used for jingles that start with an instrumental background. It is useful to let the presenter know how much time it has to introduce the song.
- **Outro:** point where the interpreter stops singing.
- **Fade in:** increases audio level gradually from silence to the maximum level during the specified time interval.
- **Fade out:** decreases audio level gradually from maximum level to silence. The fade out starts when the mix out mark is reached.
- **Mix out:** point where the next audio will start.
- **Mix in:** point up to which this audio can be mixed with the previous one. This mark is only taken into account where the audio is directly inserted in the playlist. It is not taken into account, for example, if the audio is in a rotation file.

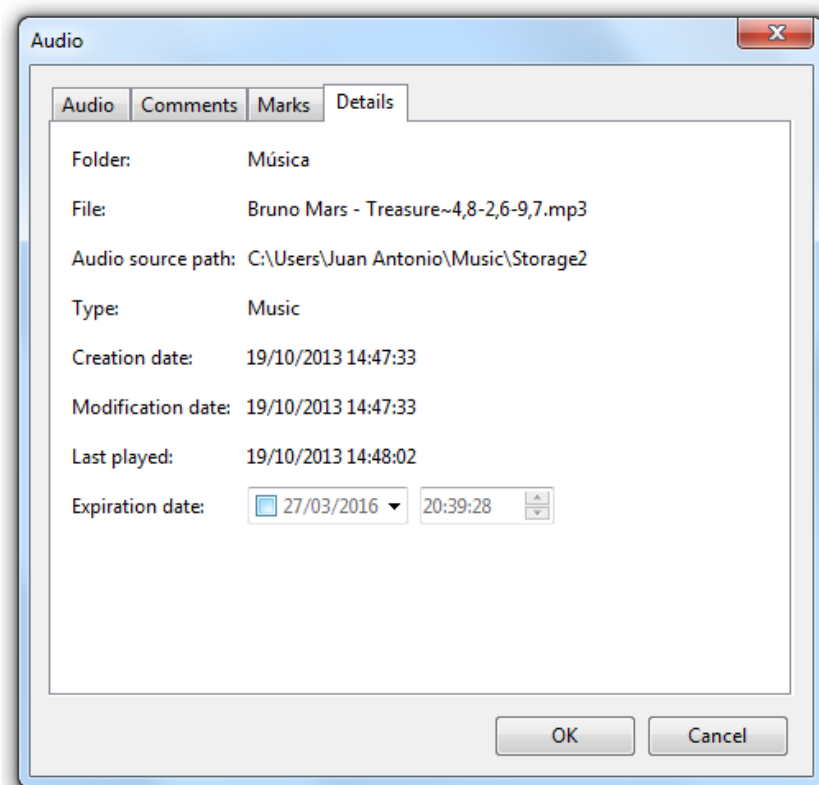
- **End type:** it can be with or without fade. In case you choose without fade, the audio will be played until the end mark and will be cut.

As you may have noticed, each mark has a check box at the left. If it is not checked, the mark will have an undefined value. In that case, the default overlap and fade values will be used for the *Mix out* and *Fade out* marks and the Mix in mark will allow the audio to be mixed with the previous one with no limit.

5.2.5.4. Details

The Details tab displays various information about the audio, like the folder where it is located, the name of the associated file, the audio source path, the creation date, the last modification date, the last playback date and the expiration date.

The expiration date can be modified to indicate the date and time from which the audio will no longer be played, even if it is added to a player. The audio will no longer be chosen from random tracks either.

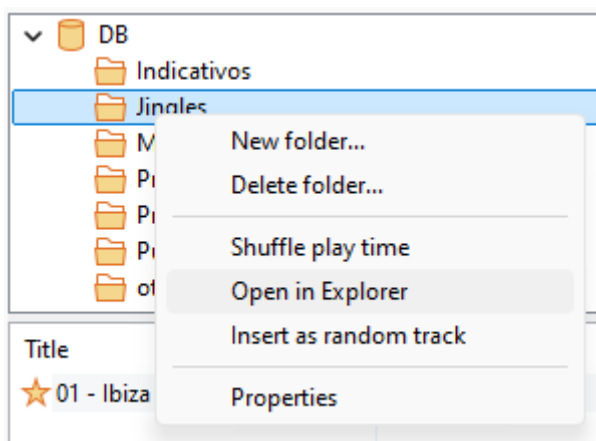


5.2.6. Folder synchronization

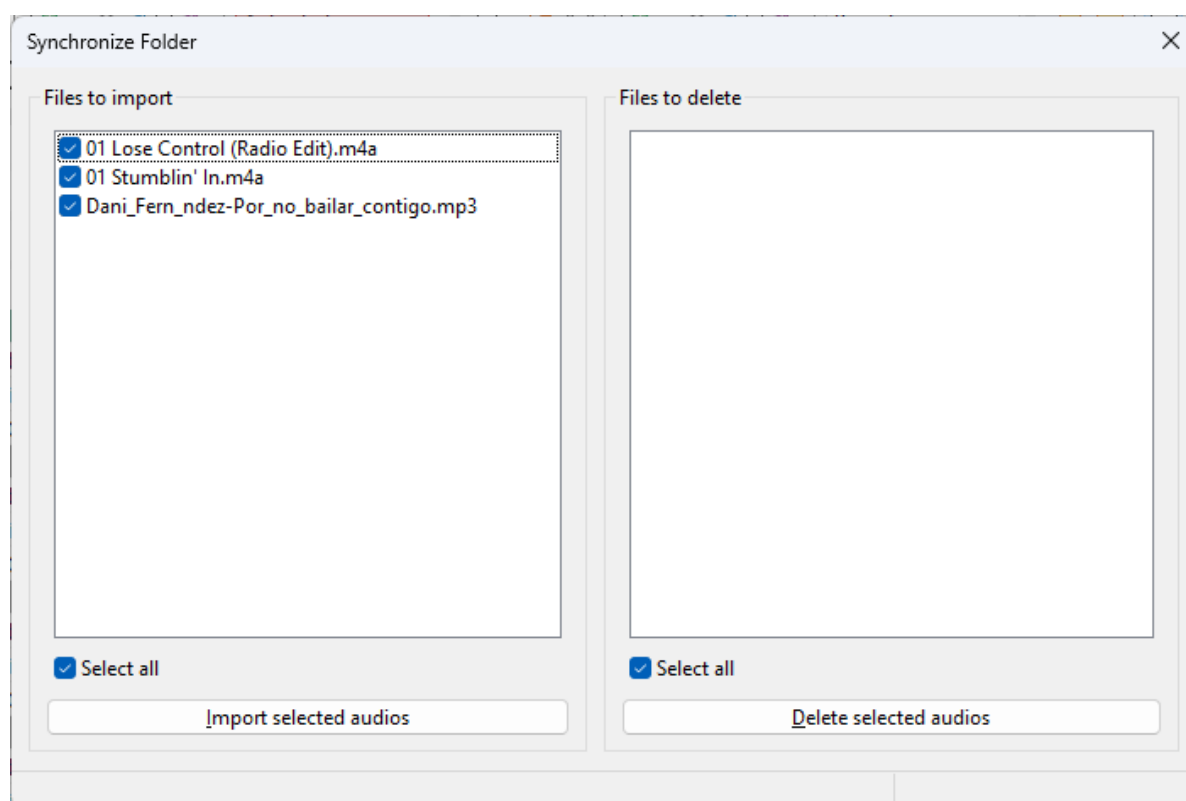
In addition to manual file import, ZaraStudio has a synchronization mechanism that allows you to sync the selected folder in the database with its associated folder in Windows. The program then searches for new files that have been copied to the folder and imports them

automatically. It also deletes files that may have been removed.

To import files using this method, go to the Windows folder associated with the database folder you wish to update. This can be done through the folder's context menu by selecting the **Open in Explorer** option:



The associated folder will then open in Windows. Copy the new files you want to add to the database into it. Then, click the button. The following window will open:



You will see a list of new files found under **Files to Import**, as well as another list of files that have been deleted under **Files to Delete**. You can individually validate each file using the checkbox on its left. Files that are not validated will be ignored. Once the files are validated, click **Import the selected audios** to add the files to the database,

or **Delete the selected audios** to remove those that have been deleted.

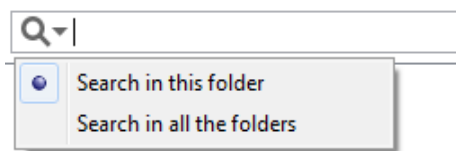
5.2.7. Search

The database audio sources have a search field next to the tool bar. It allows you to quickly find any audio:



To perform a search, just type in the field the text you want to find and press *Enter*. That text will be looked up in the *Title* and *Artist* fields of every audio.

Clicking on the magnifying glass icon, pop-ups a menu that enables you to refine the search by specifying if you want to search in the current folder or in all the available folders.

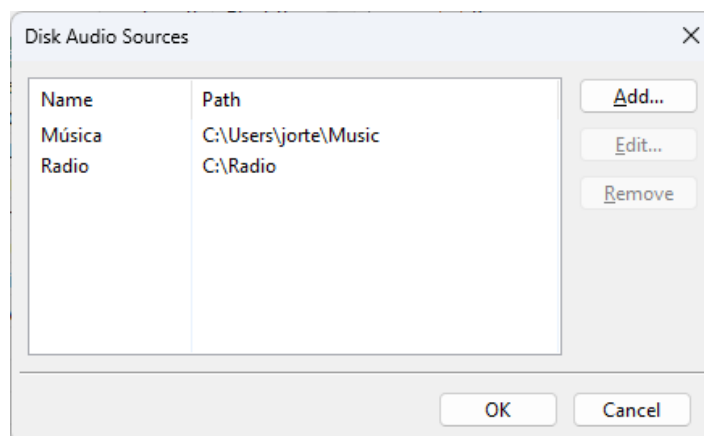


5.3. Disk audio sources

A disk audio source takes files directly from hard disk folders without using a database. This option is similar to the file explorer included in previous versions. It has the advantage of being fast to set-up and easy to use, but it has limitations in random music programmings and it may have a poor performance on large folders.

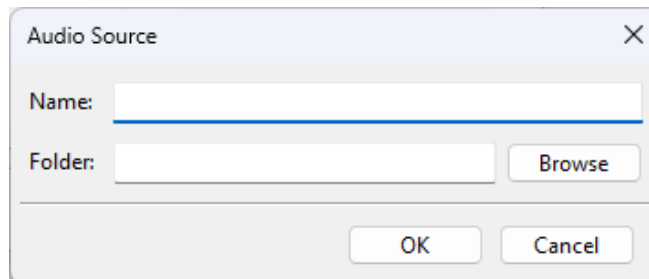
5.3.1. Create, edit and delete audio sources

To create, modify or delete these audio sources, you have to press the button  in the explorer tool bar. Doing that opens this dialog:



As you can see, it displays a list with all the available audio sources, as well as the folder they are pointing to.

To create a new audio source, just press the Add button, which opens the following dialog:



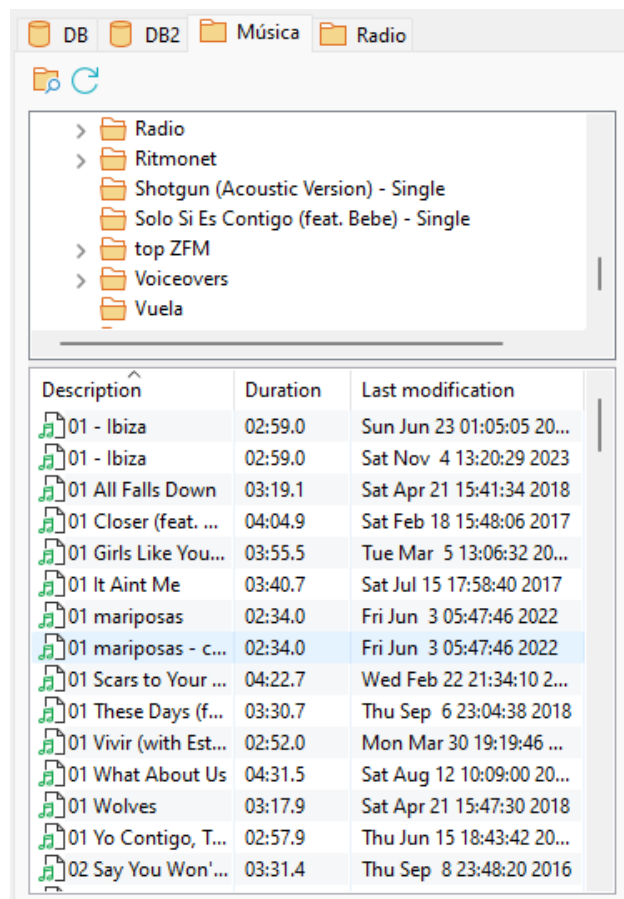
There, you have to enter the name of the audio source, which will be the one displayed in the explorer tabs, and the local or shared folder from which audio files will be taken.

Going back to the previous dialog, the Edit button opens the same dialog as Add, but it allows you to modify an existing audio source.

The Delete button enables you to delete an existing audio source, but, as a safety measure, it does not delete physically the audio files.

5.4. *Window controls*

A disk audio source looks like this in the explorer:



It has the following items:

- A tool bar, which allows you to refresh the folder contents and look for specific files.
- The folders contained by the folder to which the audio source is pointing to.
- A list with the audios contained by the selected folder.

In more detail, the tool bar has the following buttons:



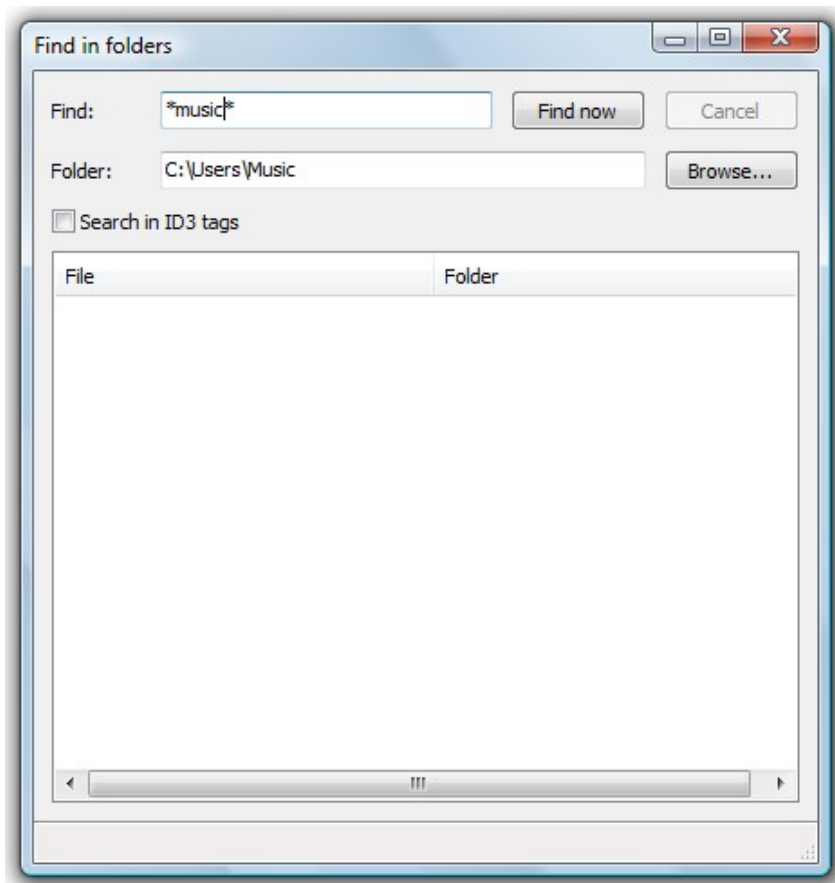
Opens the search tool.



Refreshes the folder contents, displaying the changes made from other terminals or from Windows explorer.

5.4.1.1. Search in folders

The button  gives access to the search tool. Pressing it opens this window:



By default, it will perform the search on the audio source folder and all of its descending folders.

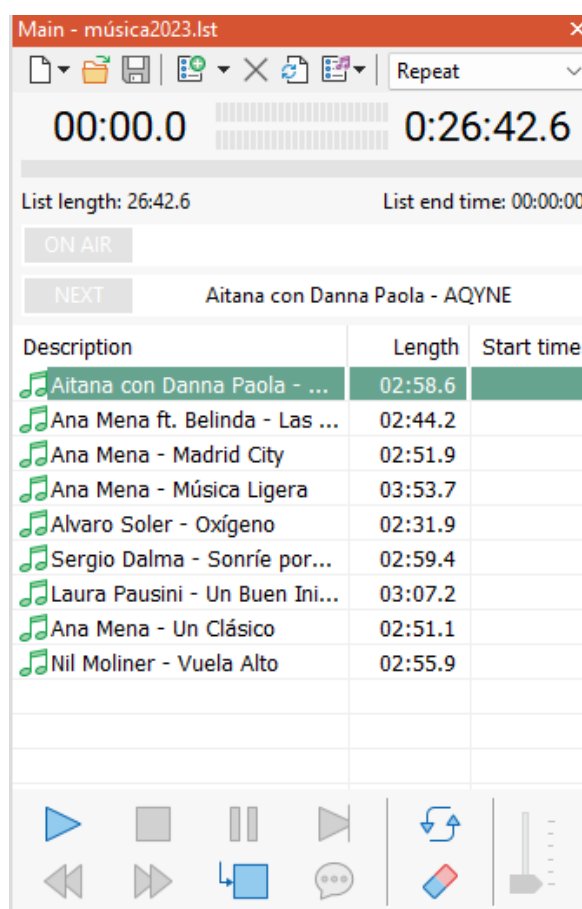
- **Find:** You have to write the text which will be searched in this field. ZaraStudio will search in the file name and in the ID3 tags TITLE and ARTIST, as long as it is enabled the search in ID3 tags option.
- **Cancel:** Cancels the current search.
- **Folder:** Folder in which the search will be done. You can choose one by pressing **Browse**.
- **Search in ID3 tags:** Tells ZaraStudio whether the ID3 tags will be read or not. Please, note that the search is slower when this option is checked.
- **Find now:** Starts the search process.

Once the search is finished, the list at the bottom will show all the files found. In order to insert them in the playlist, just make drag-and-drop. Besides, it is possible to prelisten the files by clicking with the right mouse button on the desired file and selecting the **Cue** option.

6. The players

The players allows you to broadcast audios through the specified sound card, which is configurable by accessing the options dialog. It contains several elements:

- The top tool bar.
- The audio state indicators.
- The playlist.
- The control buttons.



6.1. The tool bar



Displays a pop-up menu with the following options:

- **New:** Creates a new playlist and closes the previous one.
- **Open:** Opens a previously saved playlist (LST, ROT, SEQ...).

- **Open template:** Allows to load a music style template in the player. Songs will be added automatically to the playlist following the template.
- **Save:** Saves the current playlist.
- **Save as:** Saves the current playlist with another name.



Opens a previously saved playlist (LST, ROT, SEQ...).



Saves the current playlist.



Allows you to add new audios to the list. The arrow at the right of the plus symbol opens a context menu, that lets you add commands to the playlist.



Deletes the selected elements.

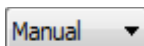


Updates the durations that are displayed in the second playlist column. This command is useful when the audios are modified and their duration changes.



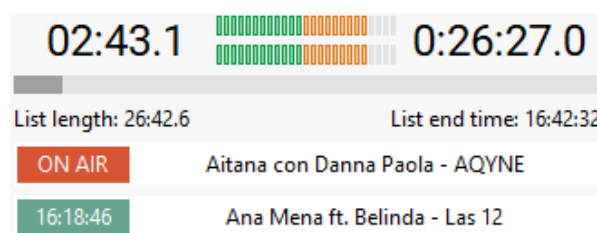
Displays a pop-up menu with the following options:

- **Find:** Allows you to search audios in the playlist.
- **Check:** Scans through all the playlist items and checks if they exist on the hard disk. If there are files missing, it tells you what files are and lets you delete them.
- **Update lengths:** Updates the durations that are displayed in the second playlist column. This command is useful when the audios are modified and their duration changes.
- **Shuffle:** Rearranges the playlist randomly.



Changes the playing mode. It can be Manual, Normal, Repeat, Random or Shuffle. See the playlist section for more details.

6.2. State indicators



- **Remaining time (left clock).** Shows the time left until the audio which is being played finishes.
- **Vumeter.** Shows the audio level.
- **List remaining time (right clock).** It shows the combined duration of all the audios in the list that have not yet been played, meaning the remaining time of the segment marked in red plus the duration of all the following tracks.

Please note that this is an approximate time, as it does not account for certain files, such as rotations or random tracks, whose duration is not known in advance. However, the mixing times between the audios are taken into account.

- **Position bar.** Displays the percentage of the audio that has been played. It can be moved with the mouse to play an exact part of the file.
- **List length.** Displays the length of all the files in the playlist. Please, note that this is not an accurate data, as it does not consider the overlap between cuts nor the length of certain files, like rotations or random tracks.
- **Title of the audio currently playing (on air).** It indicates the title of the audio playing in the list, which matches the one highlighted in red.
- **Title and time of the next audio.** Below the currently playing title, you can see the title of the next audio to be played, which matches the one highlighted in green in the list. To the left, in a green background, is the time at which the audio will start.

6.3. The playlist

Description	Length	Start time
 Aitana con Danna Paola - ...	02:58.6	16:15:48
 Ana Mena ft. Belinda - Las ...	02:44.2	16:18:45
 Ana Mena - Madrid City	02:51.9	16:21:29
 Laura Pausini - Un Buen Ini...	03:07.2	16:24:19
 Ana Mena - Música Ligera	03:53.7	16:27:25
 Alvaro Soler - Oxígeno	02:31.9	16:32:21
 Sergio Dalma - Sonríe por...	02:59.4	16:34:52
 Ana Mena - Un Clásico	02:51.1	16:37:51
 Nil Moliner - Vuela Alto	02:55.9	16:40:38

The playlist is the main element of ZaraStudio. It shows the sequence of sound files and/or commands which are played or executed one by one. The elements that can appear in the list are:

- **Sound Files.** Currently, ZaraStudio supports the following formats:
 - **WAV.** Lossless and uncompressed audio format.
 - **MP2.** Sound format that produces better quality than MP3 when using high bitrates (more than 256 kbps). This is the standard format in broadcasting, though is losing ground in favor of MP3.
 - **MP3.** Popular audio format for home use. ZaraStudio accepts any bit-rate (constant bit-rate or variable). When using constant bitrates, it is advised to use a minimum of 192 kbps, being recommendable to use 256 kbps to get a perfect

broadcast audio quality.

- **OGG.** A free sound file, alternative to MP3.
 - **WMA.** A Windows Media sound file. It is also an alternative to MP3.
 - **FLAC.** Lossless audio format, as WAV files. However, it does compress the audio, so it produces smaller files than WAV, though it does not compress as much as MP3.
 - **M4A.** AAC and AAC+ audio formats.
- **Database audios (.db files).** This item references an audio in the database. It is played as a regular audio file, but it supports additional marks.
 - **Playlists (.lst, .m3u and .pls files).** This file is a command when it appears inside a list. Its purpose is to load a new list and close the previous one. The new list will begin to play, beginning with the first song. PLS lists remember the latest file played when opening them.



These three formats are the same for ZaraStudio. The only slightly different one is PLS, as it remembers the last played song after opening the list. This feature is useful to change the musical programming at a certain time, by scheduling a file of one of these formats through an event.

- **Rotations (.rot files).** A list of sound files in rotation. It contains a list of tracks which play in the sequence as created. The tracks repeat in sequence. If a file in the list fails to play, the sequence will continue to the next file (failures noted in log file). The rotation file can contain any type of track (wav, mp3, commands, rotations...).
- **Sequences (.seq files).** Sequences sound files. It contains a list of tracks that play all followed when playing the sequence. Like the rotations, the sequences can contain any type of tracks. They can be used to program advertising blocks.
- **Templates (.tpl files).** Contain the definition of a music style based on random tracks. When a template is loaded, ZaraStudio adds audios to the playlist automatically as the player approaches to the end, following the guidelines specified by the template, so that there are always at least 15 audio minutes left to play.
- **Stop command (.stop files).** Command that stops the playback.
- **Play command (.play files).** Starts the playlist. It only makes sense as an immediate event.
- **Humidity files (.humidity).** A sound file that says the humidity. In order to carry out this task, it is necessary to have the files with the proper name format in the Humidity directory, located in the folder where ZaraStudio is installed. The format of the files must be HUMXXX.mp3, where XXX is the corresponding humidity. For example,

HUM100.mp3 is an audio clip that states: "the current humidity is 100%".

- **Temperature files (.temperature).** A sound file that says the temperature. In order to carry out this task, it is necessary to have the files with the proper name format in the Temperature directory, located in the folder where ZaraStudio is installed. The format of the files must be:
 - TMPXXX.mp3. This is a file that contains the audio clip for temperature XXX. For example, TMP025.mp3 is an audio clip that will say "25 degrees".
 - TMPNXXX.mp3. This is a file that contains the audio clip for temperature XXX below zero. For example, TMPN003.mp3 is an audio clip that will say "3 degrees below zero".
- **Time announcements (.time files).** A sound file that says the time. Audio clips for hours and minutes must be properly located in the Time folder. The name of the files must be:
 1. MINXX.mp3. This is an audio clip of minute XX. For example, MIN01.mp3 will contain an audio that will say "one".
 2. HRSXX.mp3. This is an audio clip of hour XX. For example, HRS18.mp3 will contain an audio that will say "it's eighteen hours".
 3. HRSXX_O.MP3. This is an audio clip of hour XX o'clock. For example, HRS18_O.MP3 will contain an audio that will say "it's six o'clock".
- **Pauses (.pause files).** When playing, they cause a silence of a determined length. In order to create pauses it is necessary to execute the command **playlist > Add pause....** Its duration must be specified between 0 and 3600 seconds.
- **Random tracks (.dir files).** When played, a track is selected at random from the directory or sub-directory thereof specified. Random tracks have a system to avoid repetitions (see Options – Random tracks for more details). In order to create random tracks it is necessary to execute the command **Playlist > Add random track...**, which is in the pop up menu of the button  from each player. If new files are added to the specified directory, they are automatically added to the random list.



This feature is useful to create random music programmings. A list in repeat mode can be created with several random tracks, that will define the random programming template.



It is recommended to use this feature only in local folders in the computer which ZaraStudio is being executed, avoiding folders placed in other machines of the local network. Besides, it is not advisable to use this function with folders that contain a big amount of files, as this will slow down the audio pick up process.

- **Database random tracks (.dbr files).** When played, a track is selected at random from the selected database folder (subfolders are not included). Database random tracks also have a system to avoid repetitions. To create a database random track, it is necessary to execute the command **Playlist > Add database random track...**, which is in the pop up menu of the button  from each player.

Database random tracks are also suitable to play them from network folders.

- **Post-it (.txt, .htm and .html files).** Command that opens a window, showing the contents of the text or HTML file.
- **Executables and scripts (.exe y .bat files).** Command that runs the `exe` or `bat` file.
- **Load events command (.evt command).** Loading another event file clears the current event list replacing it with events specified by the event file loaded.
- **On-line radios (.stream files).** Plays the sound of an on-line radio station.
- **Satellite connections (.satcon files).** Enables the line in of the sound card specified in the options dialog.
- **Satellite disconnections (.satdis files).** Mutes the line in of the sound card specified in the options dialog.
- **Relay pulse (.relaypulse files).** It generates a 100 ms pulse on pin 4 of the parallel port. This pulse can be useful for controlling an external device or signaling a local disconnection.
- **Virtual relay open command (.iprelayopen files).** It sends a TCP/IP frame to all configured servers, signaling the opening of the specified virtual relay. It is typically used as a remote control to signal the completion of a local disconnection via IP.
- **Virtual relay close command (.iprelayclose files).** It sends a TCP/IP frame to all configured servers, signaling the closing of the specified virtual relay. It is typically used as a remote control to signal the beginning of a local disconnection via IP.
- **Enable the DTMF detector (.dtmfon files).** Enables the DTMF tone detector.
- **Disabled the DTMF detector (.dtmfoff files).** Disables the DTMF tone detector.
- **Enable LPT control (.lpton files).** Enables remote control through the parallel port.
- **Disable LPT control (.lptoff files).** Disables remote control through the parallel port.
- **Enable serial port control (.comon files).** Enables remote control through serial port.
- **Disable serial port control (.comoff files).** Disables remote control through serial port.

- **IP control activation command (.ipon files).** Activates remote control via IP commands.
- **IP control deactivation command (.ipoff files).** Deactivates remote control via IP commands.
- **Enable voice tracking (.enablesweepers files).** Enables voice tracking.
- **Disable voice tracking (.disablesweepers files).** Disables voice tracking.

6.3.1. How to create a new list

1. Press  and select **New** in the pop-up menu to create an empty list.
2. In order to add items to the list, press  on the tool bar. This will open a window from which files can be selected. Standard Windows operations are allowed here for selecting more than one file at a time by using either the **Ctrl** or **Shift** key. When pressing the arrow next to the button, a context menu is displayed, that allows to insert commands into the playlist.

As an alternative, you can also insert audios by dragging files from the directory tree below the events list or from any other Windows explorer window. For that, select a file with the mouse and, without releasing the mouse button, drag it to the playlist.

6.3.2. Playlist operation

- When the list is in STOP, there is always a track of green color. The green color indicates which track is going to be played next. Therefore, pressing PLAY, the track marked in green color will play.
- When the list is in PLAY, there is a track marked red in color. That is the track currently playing. As above, the track green in color will be next.

At any time you can change which track will be next. To do this, double-click on a track (unless the option is activated to play immediately with double-click, in which case it is necessary to open the Media menu to make the change). Otherwise, you can right-click on the track with the mouse and select Mark as next. This way, the track will be in green color, indicating that it will play next. Clicking on  will stop the playlist after the current track (colored red) is finished.

6.3.3. How to save the list

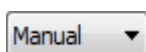
It is possible to store the list in a file, to open it back again later. To do that, press the button  and select the **Save** option in the pop-up menu. Then choose the name you want for the

list, as well as its type (LST, PLS, M3U...). If you want to save the list with another name or type, then execute the option **File > Save as...** for the main player or the command with the same name for the auxiliary players context menu.

Besides, keep in mind that the lists created on a computer don't work on another one, unless network paths are used rather than local ones.

6.3.4. Playlist operation modes

The playlist can operate five different ways. These are selected from the drop-down box in the tool bar.



- **Normal:** The list plays sequentially and stops when the last track has finished.
- **Repeat:** The list plays sequentially and restarts after the last track has finished.
- **Shuffle:** Same as repeat, except it randomly rearranges the list before playing it again.
- **Manual:** The selected song plays once and it stops when finished.
- **Random:** It plays the list in random order, that is to say, the green marker moves to a track randomly and plays it. **It does not ensure that the tracks are not repeated. Therefore, it is not recommended for random music programmings.**

6.3.5. Context menu

The playlist has a pop up menu, which opens by right-clicking the mouse on the playlist. This is basically a short cut to commonly used items from the menu bar and tool bars. Simultaneously, the track that is right-clicked is selected for the action selected in the Pop-Up menu. You can access the following functions through this menu:

- **Mark as next:** It marks the selected audio in green, so that it will be the next cut played.
- **Play:** It starts playback with the selected audio. If another cut was being played in that moment, it stops it.
- **Rename:** It lets you change the name of the selected file in the playlist.
- **Set voice track...:** It assigns a voice track to the selected audio.
- **Remove voice track:** Removes the voice track associated with selected audio.
- **Cue:** It allows you to prelisten the selected audio without broadcasting it. To use this

function you need two sound cards.

- **View selection length:** Opens a dialog that displays the total length of the selected audios.
- **Show start time:** Displays an additional column in the list with the start time of each audio.
- **Copy:** Copies the selected audios into the clipboard.
- **Paste:** Pastes in the playlist the audios contained in the clipboard.
- **Delete:** Removes the selected audios from the playlist.
- **Delete all:** Empties the playlist.

6.4. Control buttons

Below the playlist are the buttons that allow you to control it. It is also possible to make them appear at the top of the player along with the other indicators. To do this, press the  button on the top bar and select the **Buttons up** option.

The available control buttons are as follows:



- | | |
|---|---|
|  | PLAY button. Sets ZaraStudio in PLAY mode, beginning by the green colored audio. |
|  | STOP button. Stops the playlist. |
|  | PAUSE button. Pauses the playlist. This button does not work with satellite commands. |
|  | STOP + PLAY button. Stops the current audio and plays the next one (green colored). |
|  | REWIND button. Moves the playback 30 seconds backward. |
|  | FORWARD button. Moves the playback 30 seconds forward. |
|  | STOP AFTER CURRENT button. Stops playback after the current item finishes. |
|  | TALK OVER button. Reduces the playback volume, and restores it when the button is pressed again. The amount of change in playback volume is |

set in the options menu as is the time to fade the playback to that level. Look for Talk Over in the options.



LOOP button. Plays the current audio continuously, that is, when it is finished it is played again from the beginning. This happens until this button is unchecked or the **Stop + Play** button is pressed.



AUTODELETE button. When it is pressed, ZaraStudio removes each audio from the playlist, just after playing it.

Besides, the track bar which is at the right of the buttons allows to change the audio level of the playlist.

6.5. File attributes

Despite not having a database, ZaraStudio can store certain information about audios in the file name. Such data are:

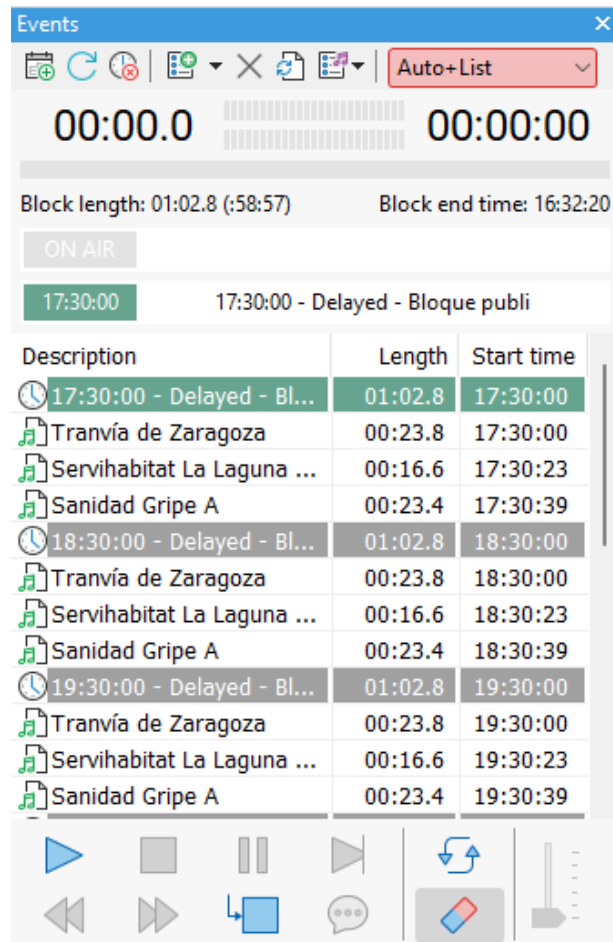
- **Overlap.** The end of each audio can be overlapped with the beginning of the next one for a customizable time interval for each cut. This is done by adding “~overlap” at the end of the file name. However, remember that this period is only considered exactly when the end of the song detector is disabled (see Options – Fade). Here, there are several examples:
 - A file called `Id~0 .mp3` would be overlapped zero seconds with the next one.
 - A file called `Song~8 .mp3` would be overlapped for eight seconds with the next one.
- **Audio start.** Some files may have several silence seconds at the beginning, especially songs ripped from CDs. In order to jump directly to the audio beginning, you should add “~start-” to the file name. Besides, you can set the overlap and the start simultaneously, by typing the suffix “~start-overlap”. Here, you can see several examples:
 - A file called `Song~4- .mp3` would be played skipping the first four seconds.
 - Another file named `Song~4-9 .mp3` would be played skipping the first four seconds and it would be overlapped nine seconds with the next cut in the list.
- **Intro time.** Intro time is the period that goes from the beginning of the audio file until the singer starts singing. In order to set this time, you have to add “~intro-start-overlap” to the file name. As you can see, when an intro time is added is mandatory to also set the overlap and start points, though you can leave them empty to use the default values. See the following examples:
 - A file named `Song~4-1-10 .mp3` would be played skipping the first audio second, with an intro period of four seconds and overlapping ten seconds with the next audio cut.

- A file named `Song~4--.mp3` would be played with a four-second intro period and with the default overlap and start values.
- **Expiration date.** Some audios, like ads, may have an expiration date, from which the file mustn't be played. In these cases, you can set this date in the file name. This way, ZaraStudio won't play expired files and it will indicate this situation in the log file. Besides, when an expired file is placed into a folder and that folder is played as a random track, the file is not considered. expired cuts in rotations aren't played either. The date must be typed in the format `[dd-mm-yyyy]`, since, if it is not exactly in this way, it won't be considered or it will behave unpredictably. Here, there are some examples:
 - A file called `shopAd [12-11-2008].mp3` would expire on the 12th of November, 2008. That day, it wouldn't be played.
 - A file called `Christmas [07-01-2009]~2-1.mp3` would expire on the 7th of January, 2009, it would be overlapped for a second with the next cut and it would be skipped the first two seconds.

7. Events

An event is a file that activates on schedule. Events are a useful way to play files or to execute commands independent of the playlist. They can be used to program announcements, actions, etc.

From version 3, events are played from an independent player. This way, audios are played from the main player and, when the time of an event is reached, the main player is stopped and the event player activates. Once the scheduled events have been played, the main player activates again.



This figure shows the event player. The playlist contains all the pending events that are going to be played today. As they are played, they are automatically removed from the playlist. At 23:45 (11:45 PM), tomorrow's events are inserted at the end of the playlist.

Events may come from two different sources:

- From the events programming dialog.
- From the commercial schedule. This schedule can be generated with an external application, like ZaraTraffic, or with the *Schedule editor*, which can be accessed from the **Tools > Schedule editor** menu option. There can be a different schedule for each week day, as well as for specific dates. First, ZaraStudio will try to load a specific schedule for the current date. If the schedule does not exist, it will try to load a generic schedule for the current week day.

This way, events from those two sources are merged and displayed in the events player. Besides, the user can modify them at any time, as if it were a regular player.

7.1. The tool bar

The tool bar of the events player is similar to the one in the regular players, except the first three buttons, whose functions are the following:



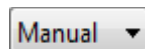
Opens a dialog that allows you to create new events, as well as modifying or viewing existing ones.



Reloads the event list, reflecting the changes that might have been done from other network terminals. Take into account that changes made directly on the player will be lost.



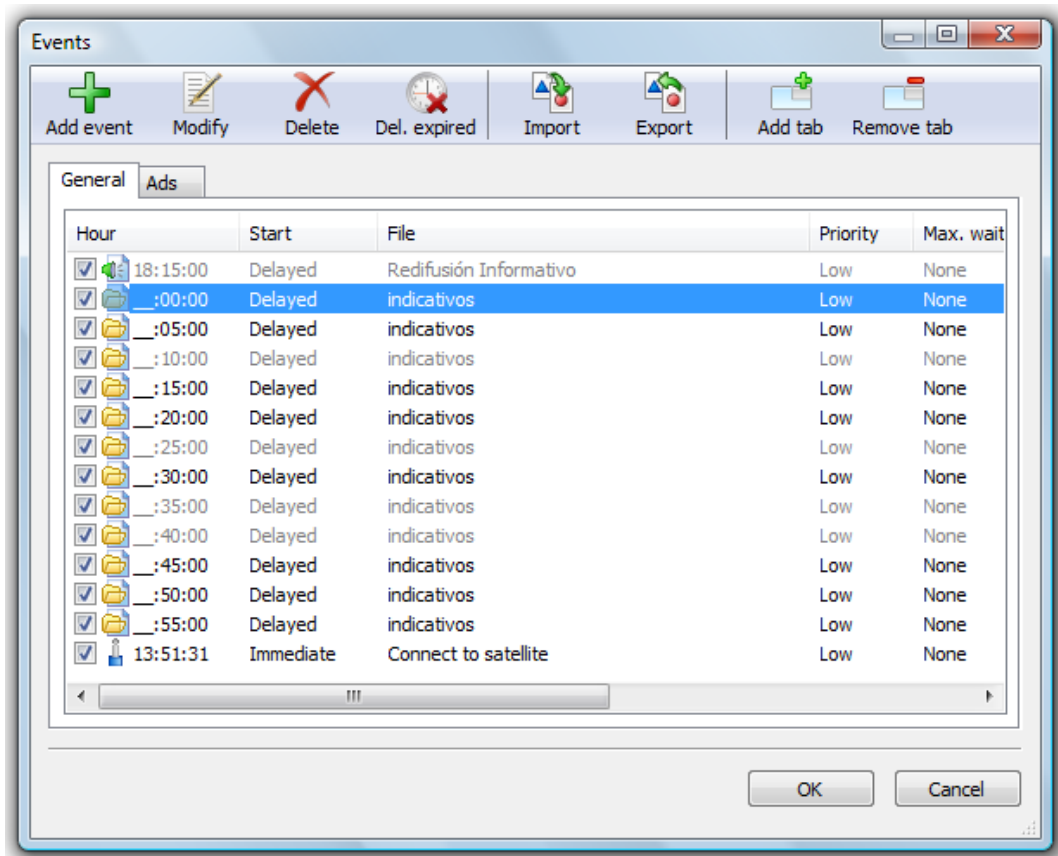
Removes the events whose air time has already passed.



Changes the playback mode. It can be *Manual*, *Auto+List*, or *Auto+Sat*. When the player is in manual mode, no events are triggered without user intervention, while in automatic mode, events are triggered as their scheduled time arrives. If the *Auto+List* mode is selected, the application will switch to play the main player once the events are finished; on the other hand, if the selected mode is *Auto+Sat*, it will connect to the satellite signal.

7.2. Event programming dialog

As previously stated, the event programming dialog is acceded through the  tool bar button. When you click on that button, the following window opens:



Each event has a check box that serves to activate or to deactivate the events individually. Changes done will be saved and the dialog will close when pressing the OK button.

7.2.1. New

Now, to add a new event, just press the **Add event** button. Then, we will see the following dialog:

The screenshot shows the 'Events' dialog box with the following settings:

- Description:** (empty text field)
- Tab:** General
- Duration:** 00:00:00
- Date and time:**
 - First launch: 31/12/2024 0:00:00
 - Expiration: (unchecked)
- Days:** Mon, Tue, Wed, Thu, Fri, Sat, Sun, All (all checked)
- Start and repetition:**
 - Periodicity: Once a day
 - Start type: Delayed
 - Maximum wait: 5 minutes (unchecked)
- Event type:** File
- File:** (empty text field with a browse button ...)

The user defined parameters of an event are:

- **Description**

Allows you to give a name to the event, which will be displayed in the general event list window. If this field is left empty, the event name will be the same as the name of the file selected as the event's content.

- **Tab**

Name of the tab in the event dialog to which this new event will be assigned.

- **Duration**

Desired duration for the event. It is used only for informational purposes for the user.

- **Date and time**

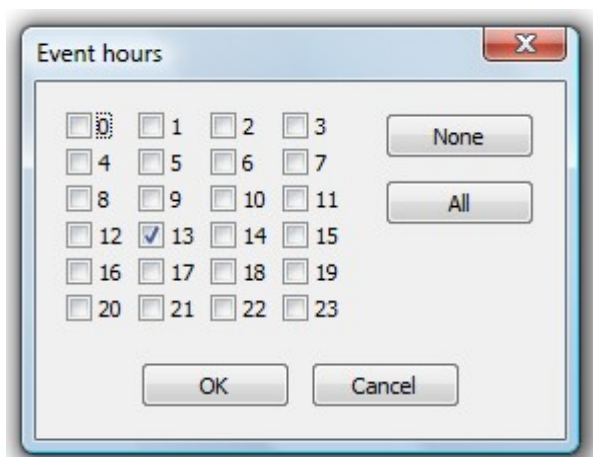
Select the date and time at which the event will play for the first time. The event will remain active until the date and time of expiration. If the expiration check box is not checked (default), then the event won't expire.

- **Days**

Allows you to configure the days of the week when the event will be active.

- **Periodicity**

Setting date and time defaults to playing once per day. Selecting **Play every hour** will do just that. Also, it is possible to program the event to play at selected hours. Selecting ... opens the following window:



Here you can mark the hours desired. For any of the times (hours) selected, the minutes default to whatever was selected for the start time.

- **Event type**

This can be a sound file, but also we can activate play or stop automatically, insert a random track, a connection via satellite... Through this dropdown, you can select the desired event type. Special mention goes to the Block type, which allows scheduling multiple audio files to be played in sequence through a single event. For more information, please refer to the playlist section.

- **Start type**

An event can be delayed, immediate or overlapped. Let's see how it behaves on each case:

- **Delayed.** The event is not played when its start time arrives, instead it waits until the song that is being played ends. If the program is stopped, the event will remain in wait until it is launched manually.
- **Immediate.** The event is played at its exact time. If another file is being played, it will be stopped. On the other hand, if the program is not playing any file, the event will be played too.
- **Overlapped.** The event is played over the file which is being played in that moment, reducing its volume to hear the event clearly. This is configurable in the Talk Over page of the options dialog.
- **Telecommand.** Once its start time is reached, the event waits until a

telecommand is received, either by DTMF tones, parallel port or serial port.

- **Maximum wait**

Maximum wait specifies how long an event can be delayed before being removed from the list of events. For example, if a delayed event programmed to start at 13:15 has a maximum wait of 5 minutes and cannot start by 13:20, it disappears from the window of next events and it does not play this time.

7.2.2. Modify

Click to modify one or more parameters of an event. It is necessary to have previously selected an event in the list. The same action can be carried out by double-clicking on an event.

7.2.3. Delete

Click to delete one or several events. In order to select several events, hold the **Ctrl** key while events are selected at random with the mouse. In order to select a block of events, click on an event and while holding the **Shift** key, select the last event in the desired list.

7.2.4. Delete expired

Events that have expired appear grayed out to indicate this fact. Clicking on **Delete expired** will clear all expired events from the list.

7.2.5. Open/Save

These two buttons are to open existing event files or to save the displayed event list respectively. In any case, when closing ZaraStudio the current list of events is stored automatically by Windows in the registry and is restored when ZaraStudio is restarted.

7.2.6. New tab

This button opens a dialog in which you must specify the name of the new tab. After typing it, a new tab will appear at the right of the last one. If there is no enough space in the window to display it, two small arrows will be displayed to navigate through the tabs. Events are always created in the active tab. However, it is possible to move them from one tab to another. Simply, right-click over the desired event and select the **Cut** command. Then, go to the destination tab, press the right mouse button again and choose the **Paste** command.

Tabs are useful to group events by themes, avoiding a large events list. This way you can, for example, create a new tab called "Id", another one for "ads",...

7.2.7. Remove tab

A dialog will appear when pressing this button. It will ask you if you are sure you want to delete the tab, because, when doing it, all the events it contains will be deleted too.

7.2.8. Context menus

The events dialog has two context menus, which allows you to access to several additional features.

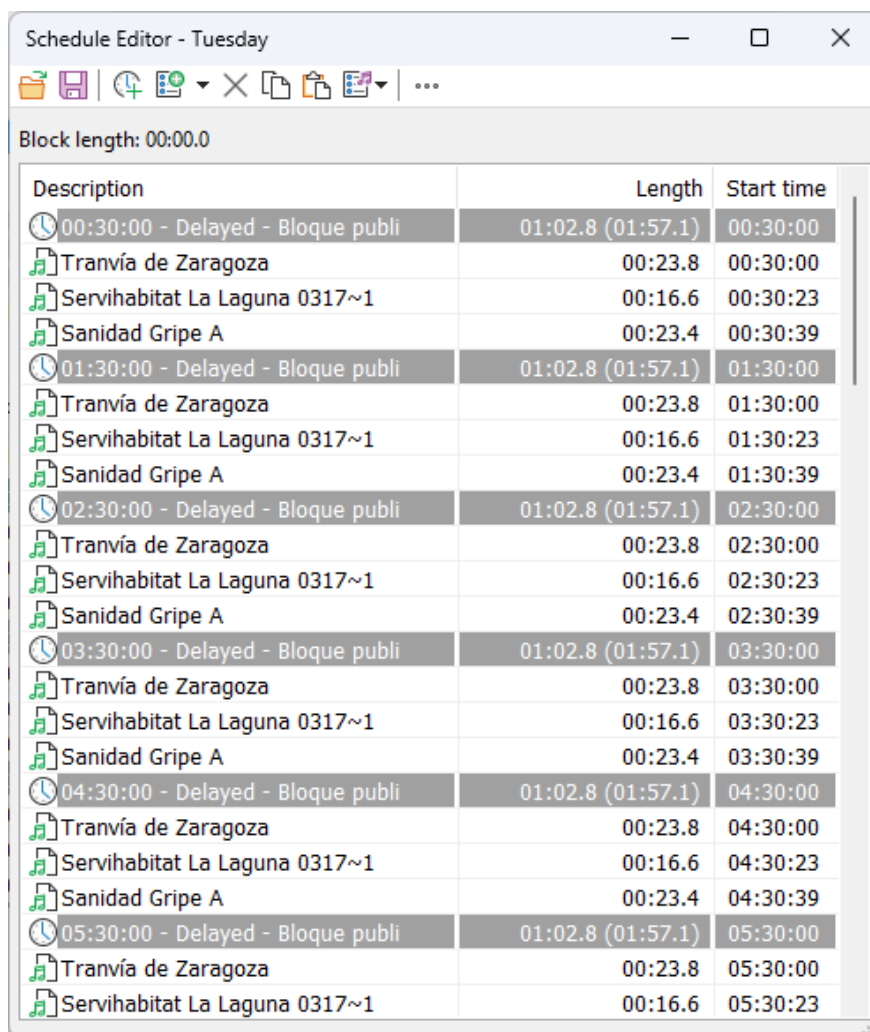
- **List context menu.** If you press with the right button of the mouse on the events list, a pop-up menu will appear, that will allow you to make the typical edit operations: copy, paste, cut, remove and remove all.
- **Tabs context menu.** This menu is opened by clicking with the right mouse button on the active tab. You can create a new tab, remove the current one or rename it.

7.3. *Schedule editor*

As previously stated, events can come from two different sources: the events programming dialog, whose use has been described in the previous section, and today's advertising schedule (though its use it is not limited to advertising). In this section, we will cover the second option.

When ZaraStudio loads at 23:45 tomorrow's events, it also tries to load the advertising schedule for that day. That schedule can be specific for that day or a generic one for the corresponding weekday. Schedules for specific dates have more priority and the generic ones are only loaded when the former does not exist.

In order to edit a schedule, click on the  button and select **Schedule editor** on the pop-up menu. Doing that opens this window:



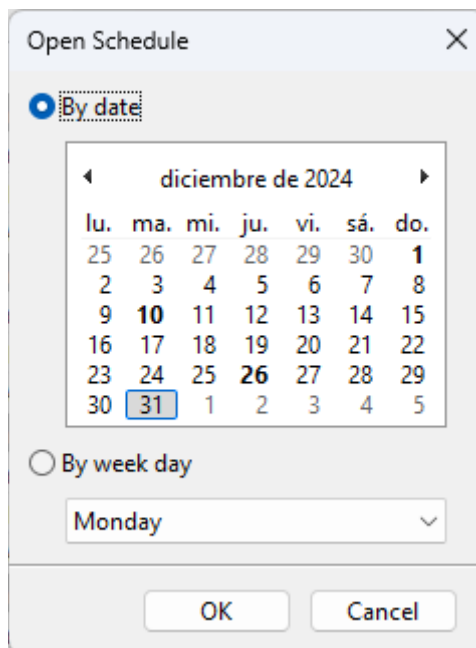
When it opens, it displays today's advertising schedule. The loaded day can be seen in the title bar.

It works almost in the same way as a regular player. The only difference is that it does not have playback controls. However, the open and save buttons are slightly different, as they allow you to choose dates or weekdays instead of files.

Another difference is that items are grouped in blocks in the same way as in the events player and they are highlighted in gray. In the **Duration** column, the total time of all the audio files in the block is displayed, taking into account any mix times if applicable, and, in parentheses, the remaining time to complete the configured duration for the block. If the block time has been exceeded, the **Duration** box will appear in red.

7.3.1. How to open and save schedules

To open a schedule, just press the  button on the tool bar. Doing that, opens this dialog:



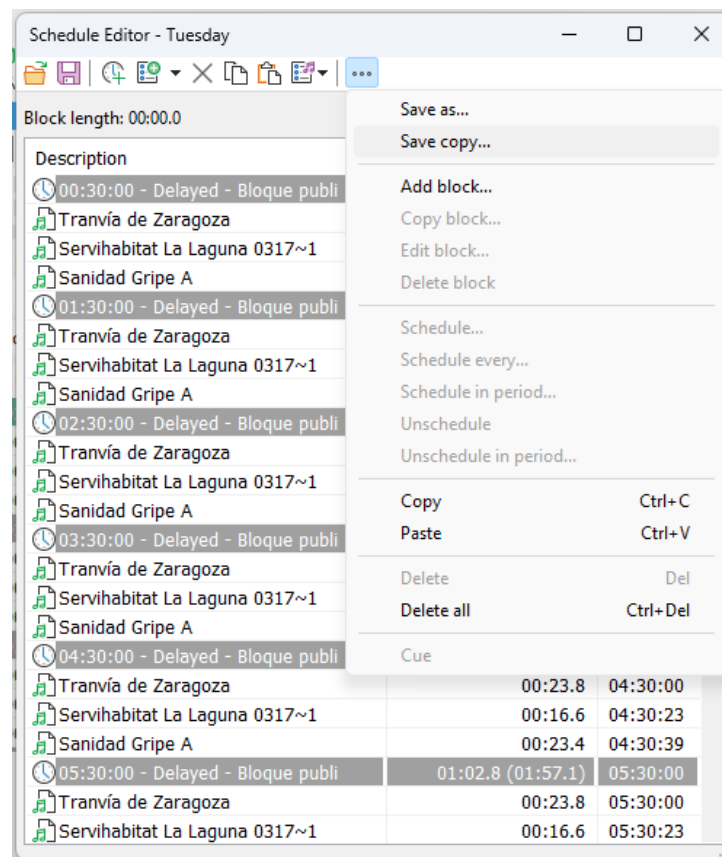
There, you can select if you want to open a schedule for a specific date, by checking the **By date** option, or a generic one for a specific weekday, by checking the **By weekday** option.

Depending on the selected option, you will have to select a date in a calendar or a weekday in the corresponding drop-down field. To facilitate loading by date, the calendar displays in bold the dates for which there is already a schedule.

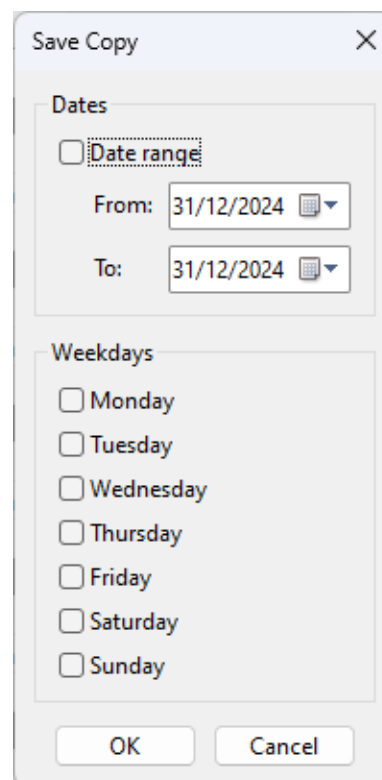
Pressing **OK** will open the selected schedule. In case there is not a schedule for that date, a blank schedule will appear.

Once you have edited the schedule, you can save it by pressing the  button. Additionally, it can also be assigned to a different day using the **Save as...** option, found in the ******* menu or in the context menu of the list, accessed by right-clicking. When doing this, a dialog similar to the open dialog appears, allowing us to select the day on which we want to save the schedule.

If we want to save the current schedule on multiple days at once, we will press the ******* button and then select the **Save a copy...** option.



Doing so will open a new window that allows us to choose the date range in which we want to save the schedule:



Here, we have two options:

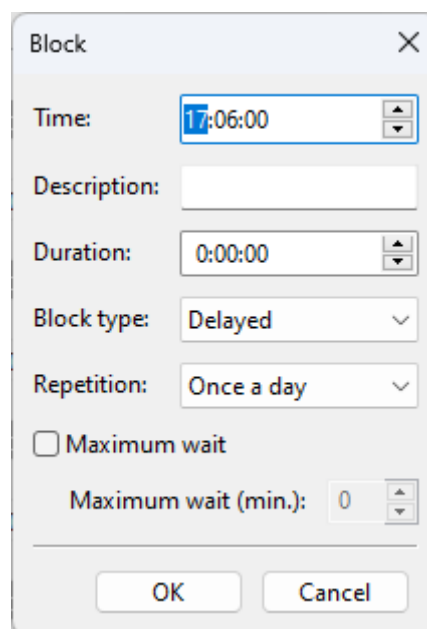
- **Days of the week:** if we simply want to save the schedule on multiple days of the week, we select the desired days and press **OK**.
- **Date range:** if, on the other hand, we want to save the schedule by date, we choose the date range in which we want to save the schedule. Additionally, we will also select the days of the week within that date range on which the schedule will be saved. For example, if we wanted to save the schedule on every Monday in June 2025, we would select 01/06/2025 as the start date, 30/06/2025 as the end date, and Monday as the day of the week.

7.3.2. Editing schedules

You can edit a schedule in the same way as a regular playlist. Therefore, you can add audios by pressing the  tool bar button or by dragging them from the audio explorer or from a Windows explorer window.

7.3.3. Creating, editing and deleting blocks

To create a block, just press the  tool bar button or select **Add block...** in the context menu. After doing that, the following dialog will appear:



The image shows a 'Block' dialog box with the following fields and controls:

- Time:** A time picker set to 17:06:00.
- Description:** A text input field.
- Duration:** A time picker set to 0:00:00.
- Block type:** A dropdown menu set to 'Delayed'.
- Repetition:** A dropdown menu set to 'Once a day'.
- ☐ **Maximum wait**
- Maximum wait (min.):** A spinner set to 0.
- OK** and **Cancel** buttons at the bottom.

This dialog allows you to set the block options, which are the same as for a conventional event: play time, block type, repetition and maximum wait. After setting those options, press **OK** and the block will be displayed on the list. It is also possible to assign a name to the event through the **Description** field and specify the desired duration through the **Duration** field. When a

duration is configured, the block shows the remaining time to be filled in the block to reach the desired duration. This is especially useful when scheduling local ad disconnections for stations affiliated with networks.

After configuring these options and pressing **OK**, the block is automatically created in the list, occupying the position that corresponds to the chosen schedule. If **Every hour** is selected in the **Repetition** dropdown, a block will be inserted every hour, with the minutes and seconds matching those set in the **Time** field.

Once the block is created, you can modify its options by right-clicking on it and selecting **Edit block....** Doing that will open a window to edit its parameters.

Besides, you can also delete an existing block and all its audios by selecting **Delete block** in the context menu.

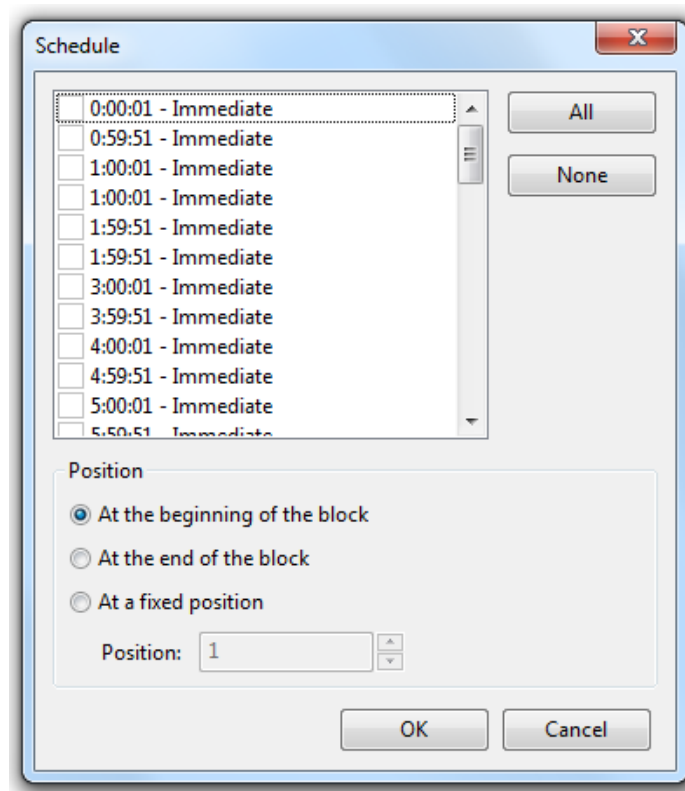
Finally, sometimes you may want to create two blocks with different times but with the same contents. To facilitate that, you can select the **Copy block...** option, which creates a new block with the same contents as the selected block.

7.3.4. Programming audios in blocks

It is common to have to schedule an audio, like a commercial, several times a day. To facilitate that task, the schedule editor provides two tools, which can be accessed through the playlist context menu: **Schedule...**, **Schedule every...** and **Schedule in period...**

7.3.4.1. Schedule

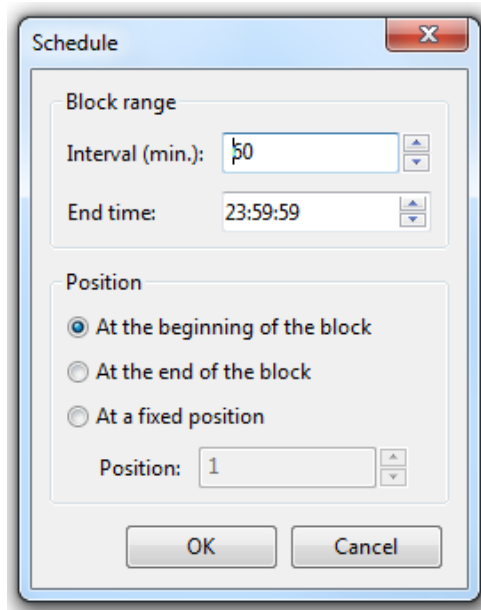
The **Schedule...** option allows you to select the blocks in which a certain audio must be placed. To use this tool, select an audio in the schedule, right-click on it and select **Schedule...** in the context menu. Doing that, will open this dialog:



There, you have to check the blocks in which you want to place the audio. Then, you will have to choose the position the audio will occupy in the block: at the beginning, at the end or in a fixed position (1 to place it at the beginning, 2 to place it in the second position,...). If a block contains less audios than the selected position, it will be inserted at the end.

7.3.4.2. Schedule every

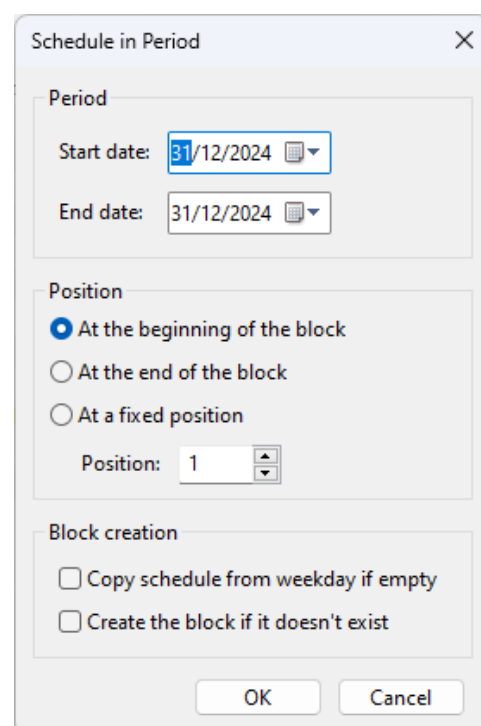
The Schedule every... option is similar to the previous one, but allows you to choose the blocks in a different way. In this case, the time of the block containing the selected audio will be taken as a reference and the audio will be inserted in the following blocks, taking into account the given separation and end time.



For example, if an audio in a block at 13:00:00 is scheduled with a 120 minutes interval until 19:00:00, it will be inserted in the blocks at 15:00:00, 17:00:00 and 19:00:00. If some of those blocks does not exist, it will be skipped.

7.3.5. Schedule in period

Unlike the previous options, which allow scheduling an audio file in multiple blocks on a single day, this command enables scheduling the selected audio in its current block over a given date range. Accessing this function opens the following dialog:



In this dialog, the following fields must be completed:

- **Start Date:** The day the audio scheduling begins.
- **End Date:** The last day the audio will be scheduled.
- **Position:** The position where the audio will be placed within the block.
- **Block Creation:** Specifies what to do if the block does not exist on a given day:
 - **Copy the schedule from the weekday template:** Copies the blocks (excluding any audio files) from the block template for the corresponding day of the week.
 - **Create the block if it doesn't exist:** Creates only the necessary block for scheduling the audio, without creating additional blocks.

If neither option is selected, the audio will not be scheduled if the block does not exist.

7.3.5.1. Unschedule

In some occasions, it may be useful to remove all the occurrences of an audio in the schedule, for example, if a client wants to cancel a campaign and we have to remove all its commercials. To facilitate that task, you can select the audio, right-click on it and select **Unschedule**. That will remove all the occurrences of the audio in the opened schedule.

7.3.5.2. Unschedule in period

This function serves the same purpose as the previous one, except that it removes the audio from all blocks within a given date range.

7.4. Command scheduler

Sometimes, it is necessary to enable and disable the reception of remote commands automatically. For instance, a station may not want to receive these commands during a specific time range because it is broadcasting local programming. The command scheduler allows these actions to be carried out without interrupting the broadcast. The command scheduler features an interface similar to the conventional event scheduler.

8. Options

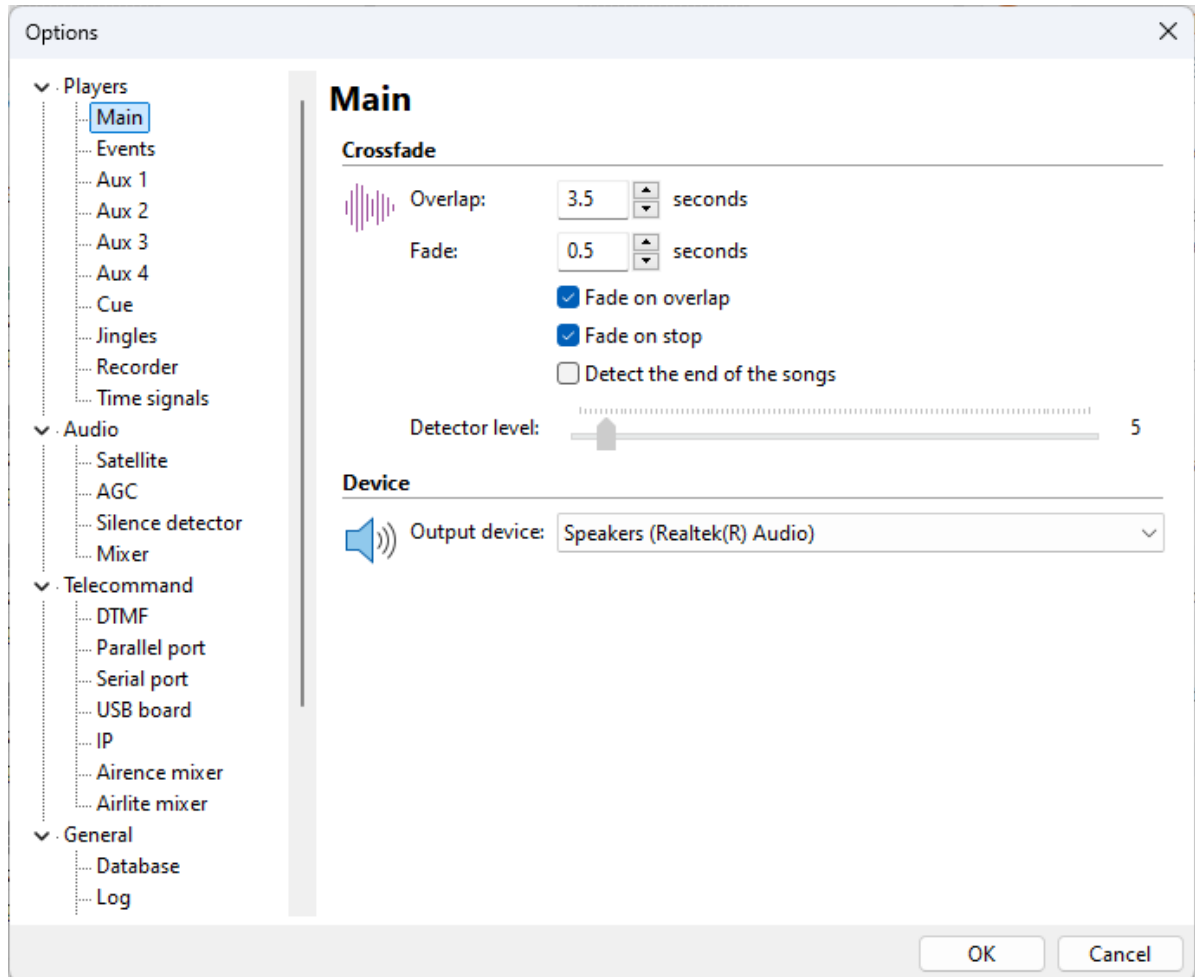
Clicking on the icon  on the button bar, will open the options dialog. From this dialog, you will be able to manage:

- Players
 - Main
 - Events
 - Aux 1 to 4
 - Cue
 - Jingles
 - Recorder
 - Time signal
- Audio
 - Satellite
 - AGC
 - Silence detector
 - Mixer
- Telecommand
 - DTMF
 - Parallel port
 - Serial port
 - USB
 - IP
 - D&R Airence mixer
 - D&R Airlite mixer
- General
 - Database
 - Log

- Explorer
- Random tracks
- Tags
- Talk over
- Weather
- Folders
- RDS
- General

Players

8.1.1. Main, events and auxiliaries



It allows you to set the crossfade parameters and the output device for each player:

- **Crossfade.** Indicates how audios in the player will be linked during playback.
 - **Overlap.** Specifies how many seconds will be played simultaneously the audio ending and the next one in the playlist.
 - **Fade.** Indicates fades duration. Fade will start at the overlap point.
 - **Fade on overlap.** When this option is active, ZaraStudio will fade the previous song whenever a new one begins. When deactivated, the song overlaps but is not faded.
 - **Fade on stop.** When activated, ZaraStudio will fade the playing track when Stop or Next is clicked. Otherwise, playback simply stops.

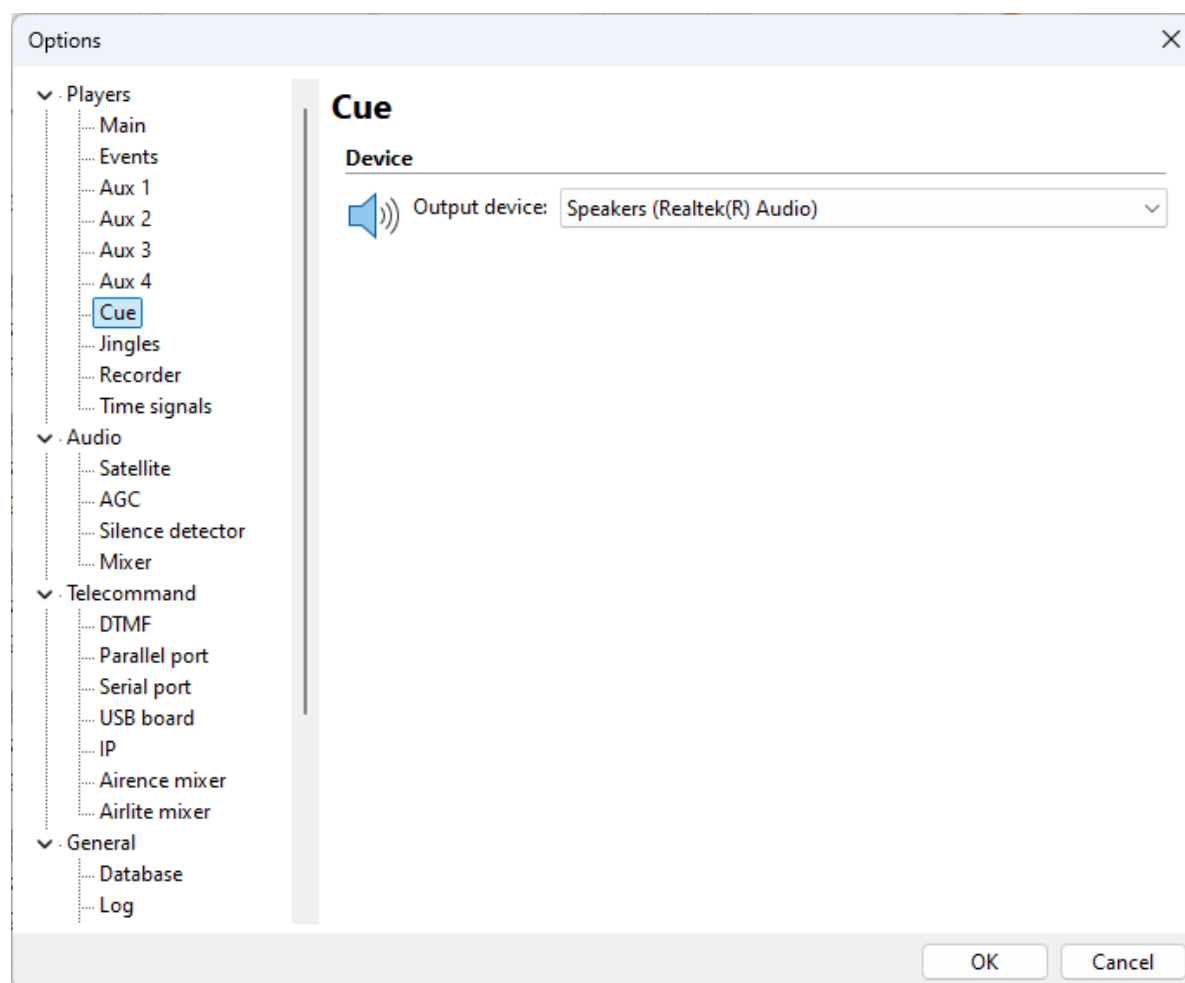
- **Detect the end of the songs.** When this option is enabled, crossfade is not made until the current playing audio level falls below the threshold indicated in the sliding bar. However, to achieve better mixes, it is recommended to manually set the overlap points for each audio or use the ZaraOverlap application.
- **Output device:** Indicates the sound card to use in the player.

By default, the value selected for overlapping applies to all tracks. Nevertheless, it is possible to give a specific value of overlapping to each song. The file must be renamed by adding ~overlap to the file name, where overlap is a positive integer or a float value. For example, in the file Blues~1.mp3, one second will be the overlap value. When writing decimal values, make sure you are using the decimal symbol specified in your Windows configuration, otherwise it won't be recognized (**Control Panel > Regional Configuration of language > Standard and formats > Personalize**).



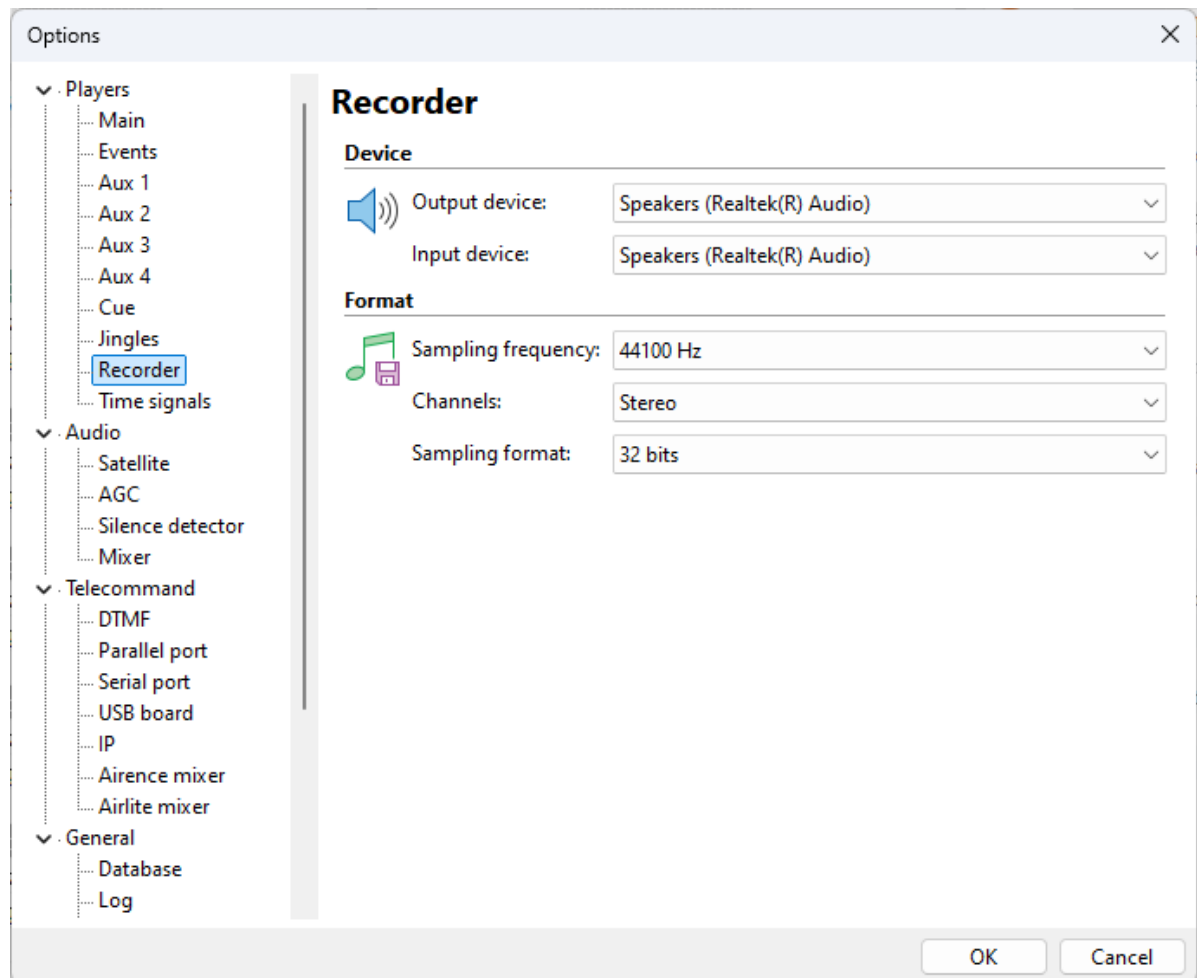
Remember that you can set a different overlap in each file. To do that, you only have to rename the file, adding at the end of its name the character ~, followed by the seconds you want the overlap to last. For example, the file jingle~1.mp3 will be overlapped for a second with the next audio.

8.1.2. Cue and jingles



It allows you to select the sound card to use for Cue and for the bottom bar jingles.

8.1.3. Recorder

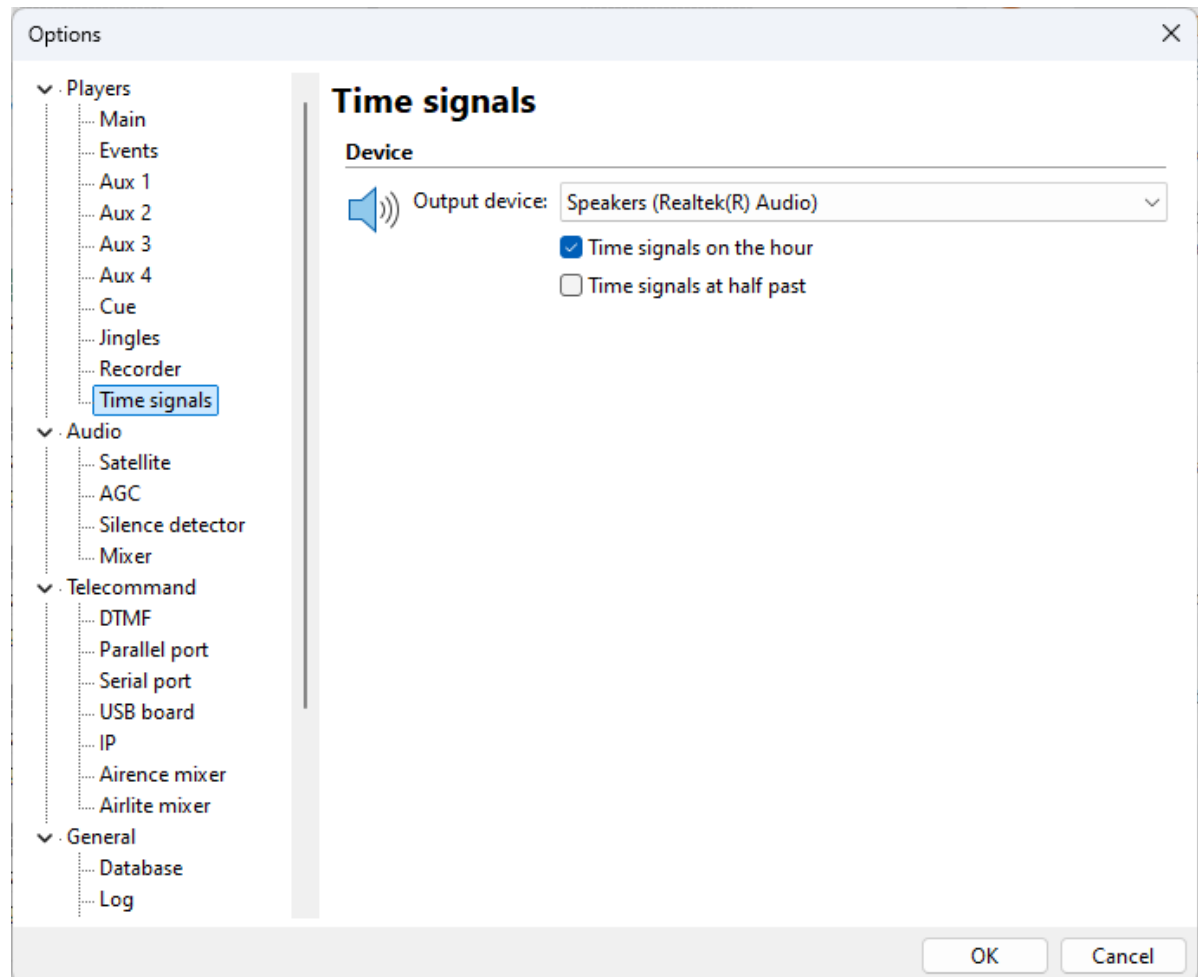


It enables you to configure the recording tool, which is accessed with the  button. You can set the following parameters:

- **Devices.**
 - **Output device.** Specifies the sound card used for audio playback to prelisten your recordings.
 - **Input device.** Indicates the sound card used as recording input.
- **Format.** It allows you to choose the audio quality used for recording. We recommend a minimum sampling frequency of 44100 Hz. for broadcast quality.

8.1.4. Time signals

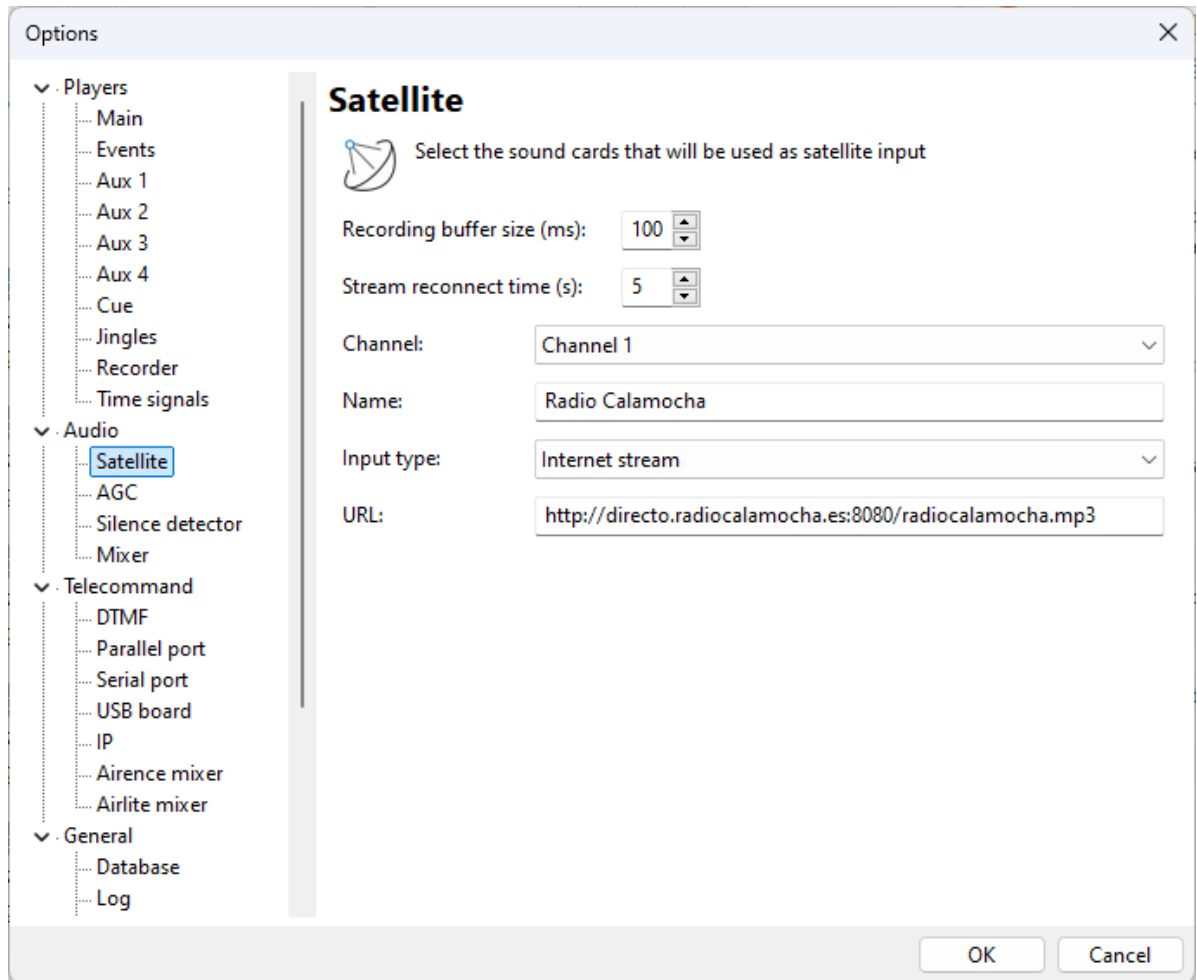
Allows configuring the broadcast of time signals, such as the classic pips (formally known as Greenwich Time Signal) that sound on the hour and at the half-hour:



- **Output device:** The card through which the chimes will be played.
- **Time signals on the hour:** Plays the chimes at :59:55 so they end exactly on the hour.
- **Time signals at the half-hour:** Plays the chimes at :29:55 so they end exactly at the half-hour.

8.2. Audio

8.2.1. Satellite



ZaraStudio allows rebroadcasting audio from the line-in input of up to two sound cards. The audio can be directed to the output of the event player (using connection and disconnection commands or the audio connector buttons in the main window's toolbar) or to the output of the active player when using timer-based connections.

Up to 10 satellite signals can be rebroadcast simultaneously, each from a different device or audio source, such as the line-in input, a streaming signal, or a D&R Airlite mixer.

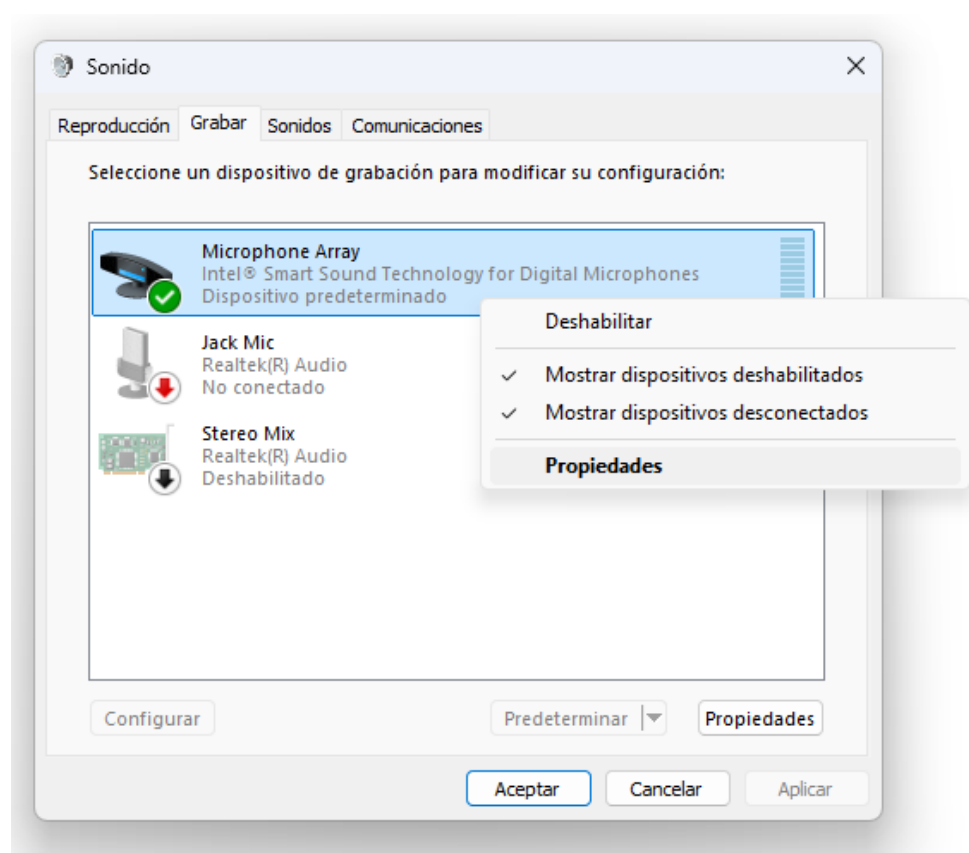
The configuration fields include:

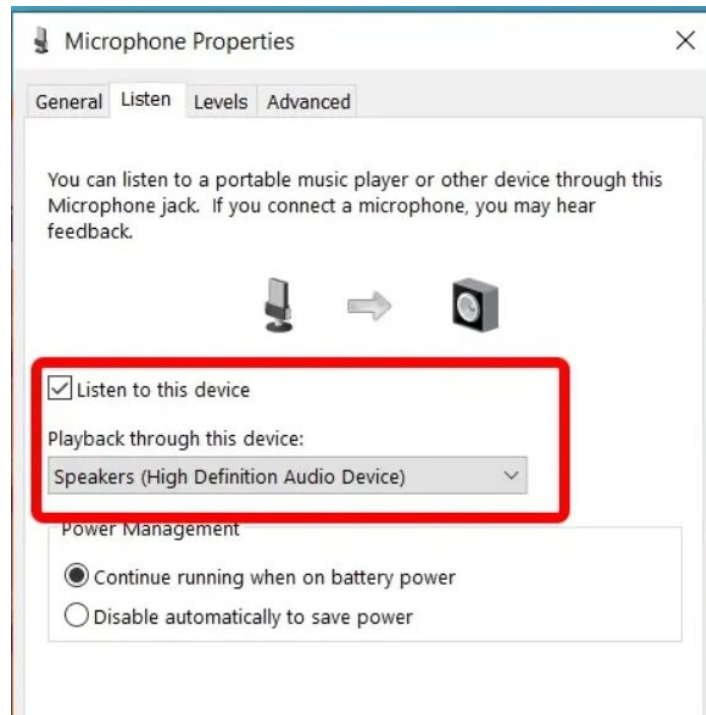
- **Channel:** The channel number to configure (1 to 10).
- **Name:** The name of the station to rebroadcast.
- **Input type:** Options include:
 - **Record from device:** The application rebroadcasts the sound from the line-in input of the selected sound card. ZaraStudio records the input signal, stores it in a buffer, and plays it through the output card. The buffer size is adjustable via the *Recording buffer size* field (in milliseconds). A larger buffer reduces the chance of dropouts but increases signal delay.

- **Control the Windows mixer (listen to this device):** Rebroadcasts the line-in signal via Windows, with the advantage that the audio continues even if ZaraStudio closes. It offers lower delay but requires Windows configuration and doesn't support DTMF tone detection.

To configure Windows, open the sound mixer via ZaraStudio, by pressing , or the Control Panel.

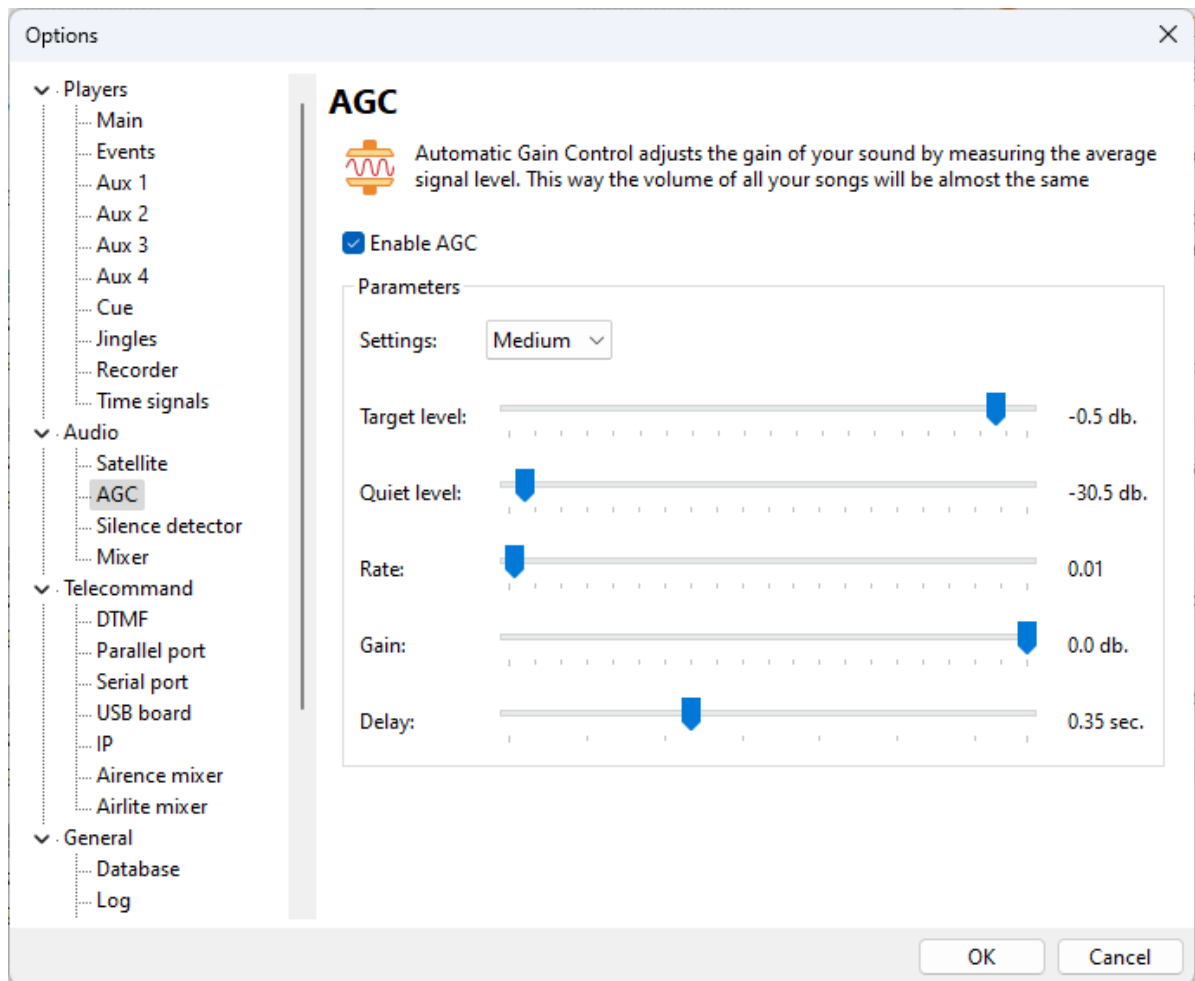
In the *Recording* tab, right-click the device connected to the input signal, select *Properties*, then navigate to the *Listen* tab. Enable *Listen to this device* and select the output card.





- **Control the Windows mixer via hardware:** Rebroadcasts the line-in input via the sound card's hardware controller. This option has zero delay but is supported by very few sound cards. The signal can only be rebroadcast through the same card as the input.
- **Control an Airlite mixer:** Rebroadcasts an external signal via the D&R Airlite mixer. When connected via USB, ZaraStudio can control the mixer and automatically activate the satellite signal's input channel. This method doesn't support DTMF tones or show VU meters in ZaraStudio but continues functioning even if the computer shuts down.
- **Internet radio:** Rebroadcasts a streaming signal using protocols like Shoutcast, Icecast, or HLS. If the streaming connection is lost due to an internet or server issue, ZaraStudio will attempt to reconnect automatically. The retry interval is configurable via the *Stream reconnection time* field.

8.2.2. AGC



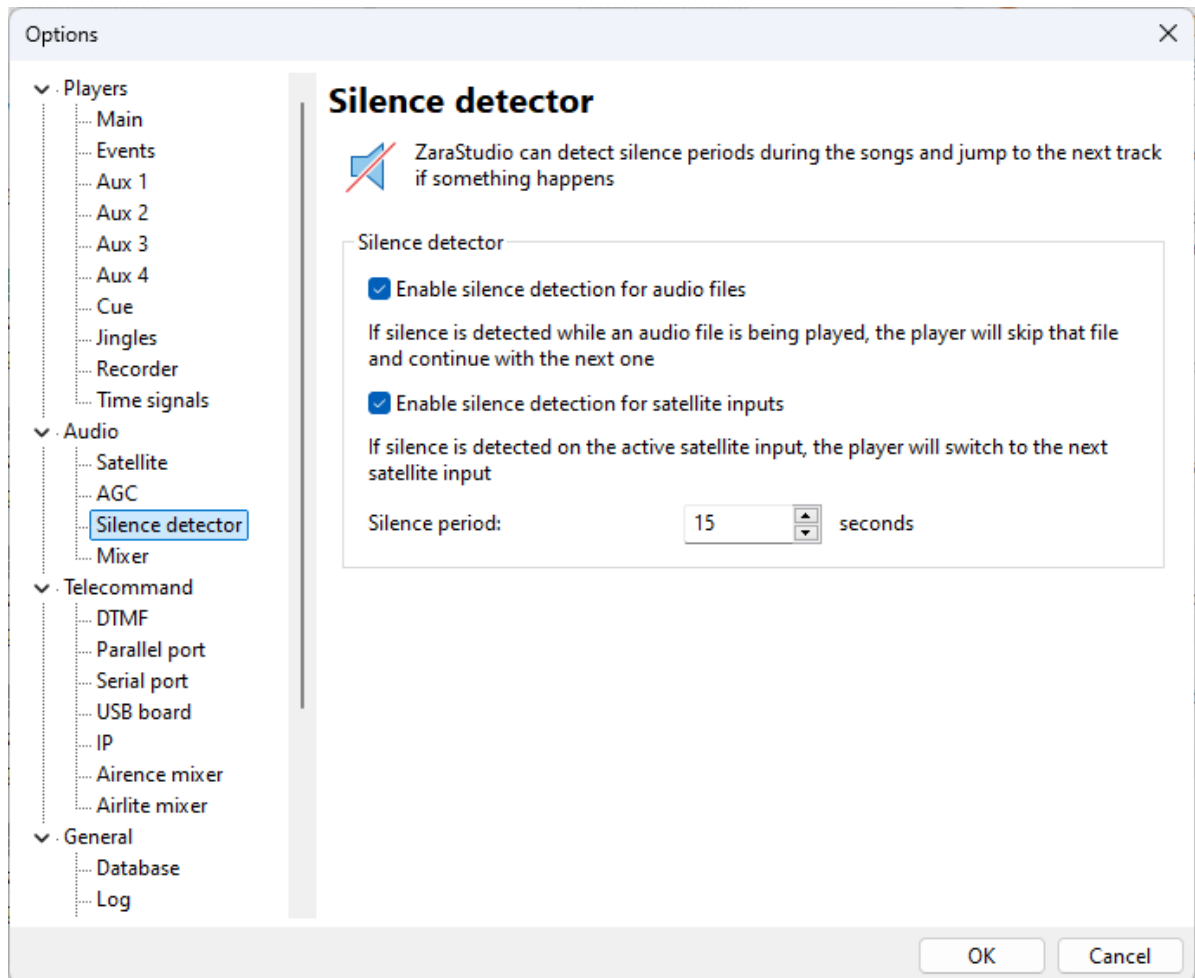
ZaraStudio has its own automatic gain control DSP (AGC), that allows to level equally the volume of all audio files automatically, providing your broadcast a more or less constant audio level.

If you want ZaraStudio to level the sound, check the Enable AGC option and configure it at your taste. These are the modifiable parameters:

- **Output level:** can take values between 0,0 (silence) and 1,0 (0 dbs). This control allows to set the volume at which files will be normalized.
- **Quiet level:** audio level under silence is considered. ZaraStudio won't amplify the sound under this level.
- **Rate:** amplification adjustment rate.
- **Gain:** amplification level.
- **Delay:** delay in seconds before increasing level.

Please, note that some extreme values may cause noises in the sound. If you prefer, you can use one of the three predefined presets. You can access them through the box which is on top of the sliders.

8.2.3. Silence detector



This feature allows ZaraStudio to detect periods of silence in songs. When such silence is detected, the program skips to the next track. Note that this is only useful for poorly recorded tracks with silences, which should ideally never be played on air. It can also be helpful in case of malfunctions in the sound card used for broadcasting. However, it cannot detect a computer failure or system crash.

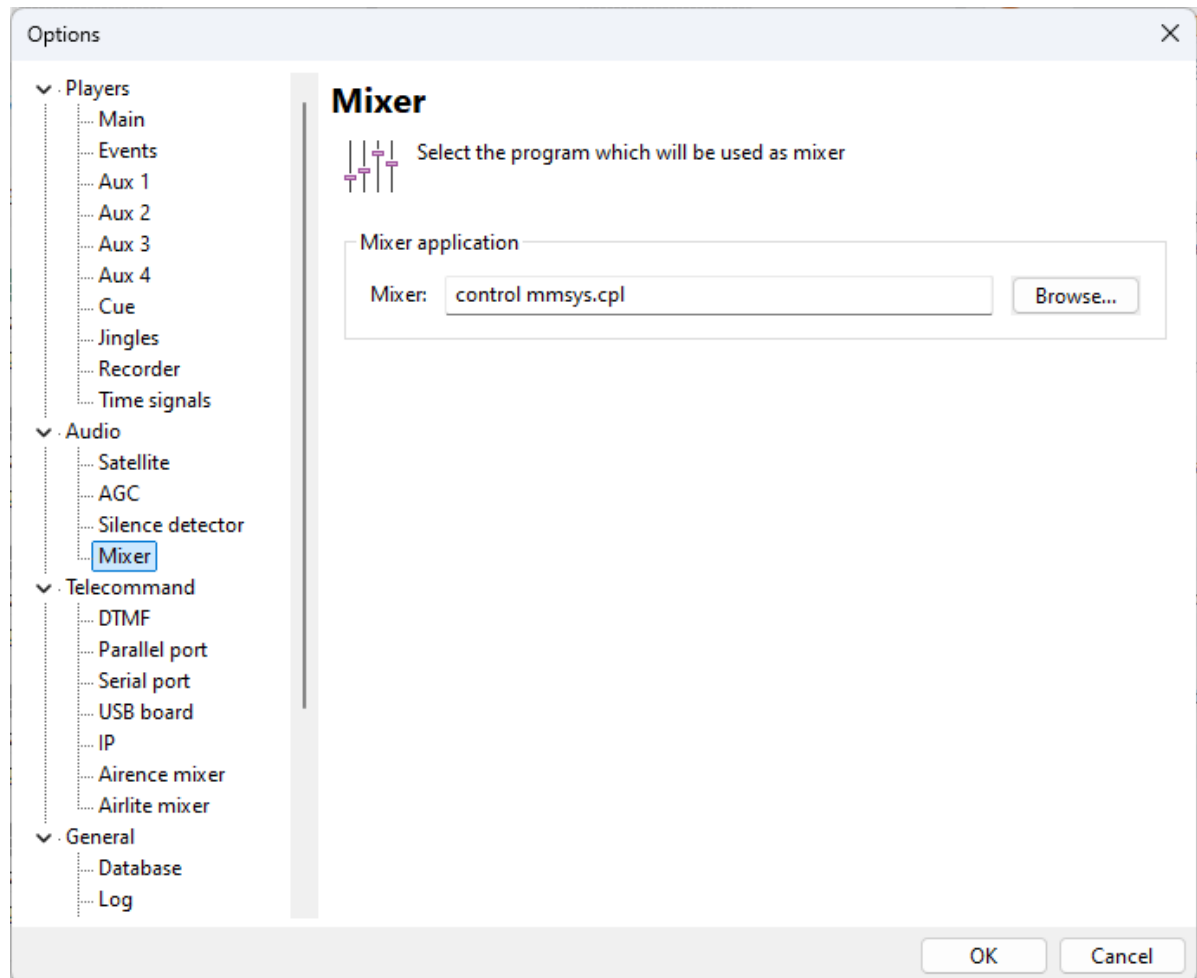
From version 4 onwards, ZaraStudio can also detect silence in satellite signals, which might occur due to adverse weather conditions or issues with a streaming signal. When silence is detected, ZaraStudio attempts to switch to the next satellite signal, where a backup of the main signal can be configured. For example, in the case of rebroadcasting a national network, the satellite configuration might look like this:

- **Channel 1:** Satellite signal with telecom commands.
- **Channel 2:** Backup signal via terrestrial digital television (TDT).

- **Channel 3:** Backup streaming signal from the web.

If silence is detected in the main satellite signal, ZaraStudio switches to the TDT signal. If silence is also detected there, it then switches to the streaming signal. When the original satellite signal is restored, ZaraStudio automatically switches back to it, stopping the rebroadcast of the backup channel.

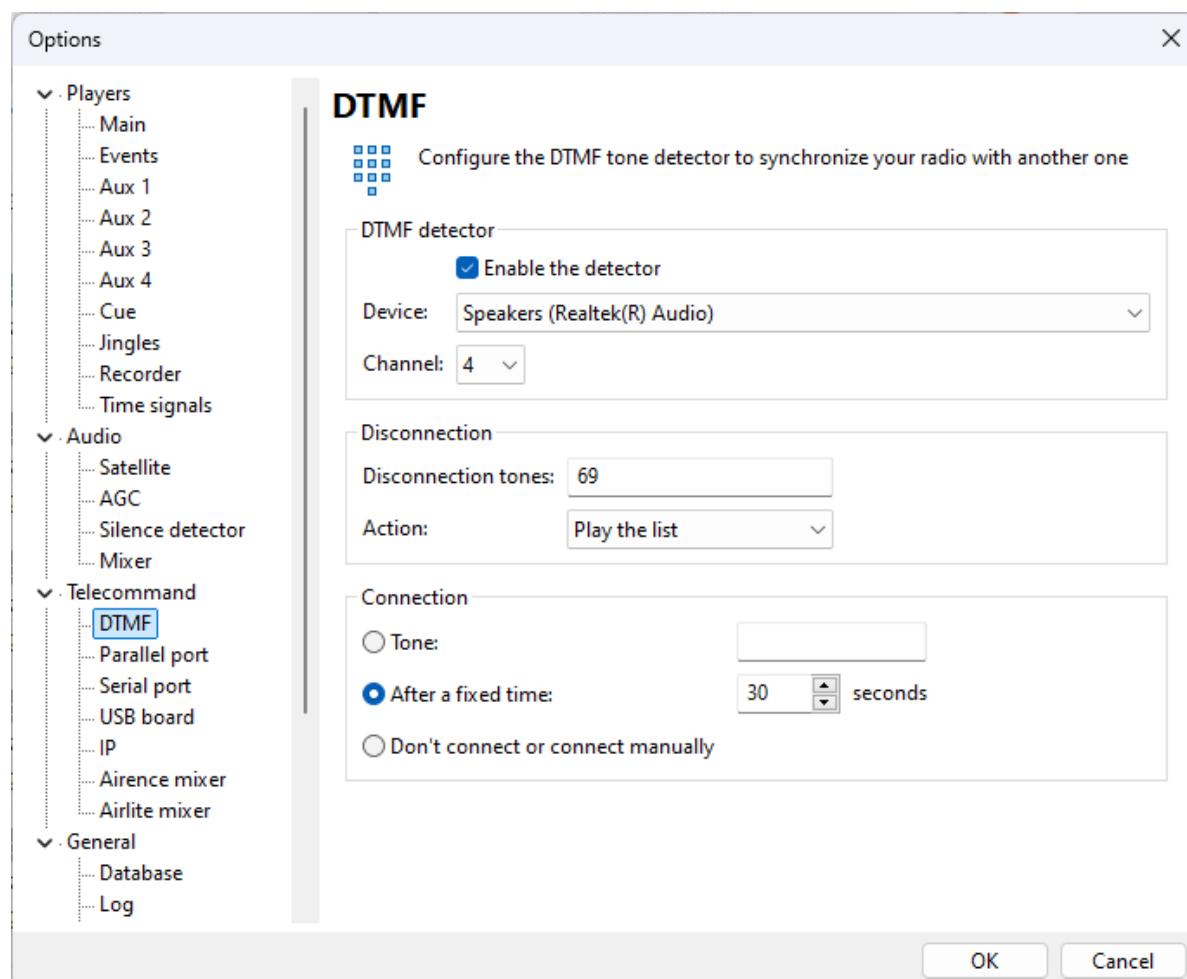
8.2.4. Mixer



You can use any Windows application audio sound card mixer. Type in the location of the mixer program file or Browse for the location. When the mixer icon on the top tool bar of the ZaraStudio main window is clicked, the mixer application selected will open.

8.3. Telecommand

8.3.1. DTMF



ZaraStudio allows you to synchronize your station with another one which uses DTMF tones. If you are not associated with any station, disable the detector. On the other hand, if you want to use this option, enable the detector and configure it according to your needs. In most stations, the disconnection tone is 69. When ZaraStudio detect this tone, it will mute the line-in channel and it will do the action selected below: play the list or play the pending events.

- **Pending events:** Plays the pending delayed events. When it finishes the playback, it plays the playlist until the connection. If there are no pending events, it will play nothing.
- **Play the list:** Plays the playlist normally (chaining the events if needed) until the connection arrives.

In order to connect you may choose three different options:

- **Tone:** Some radios emit a tone to disconnect and another one to connect. If this is your case, check this option and specify the corresponding tone (it usually is 90).
- **After X seconds:** There are radios that choose to set the disconnection time to a fixed number of minutes. If this is your case, check this option and specify the duration of your disconnections. Once that seconds have passed since the disconnection tone was received, ZaraStudio will stop the playback and it will open the line-in channel.
- **Don't connect or connect manually:** In this case, ZaraStudio goes on playing the list and the events and it doesn't connect to the line-in. Also, it can be used to make manual connections. Suppose you want to launch a sequence with commercials and reconnect when it finishes. You could achieve that by adding a connection to satellite command at the end of the sequence.

If your network disconnections have different lengths, you can use the command satellite countdown. When this command is executed a count down is started, whose length is set by the user. While this stopwatch is running, ZaraStudio goes on playing the playlist or the events normally. When this counter reaches zero, it stops the playback and it connects back to the satellite. Then, we will show you an example of how to use this command.

Suppose you have a three minutes long disconnection in which you have to play three twenty-second ads. As the commercials don't cover the whole local window, we will let ZaraStudio fill it with music from the main playlist.

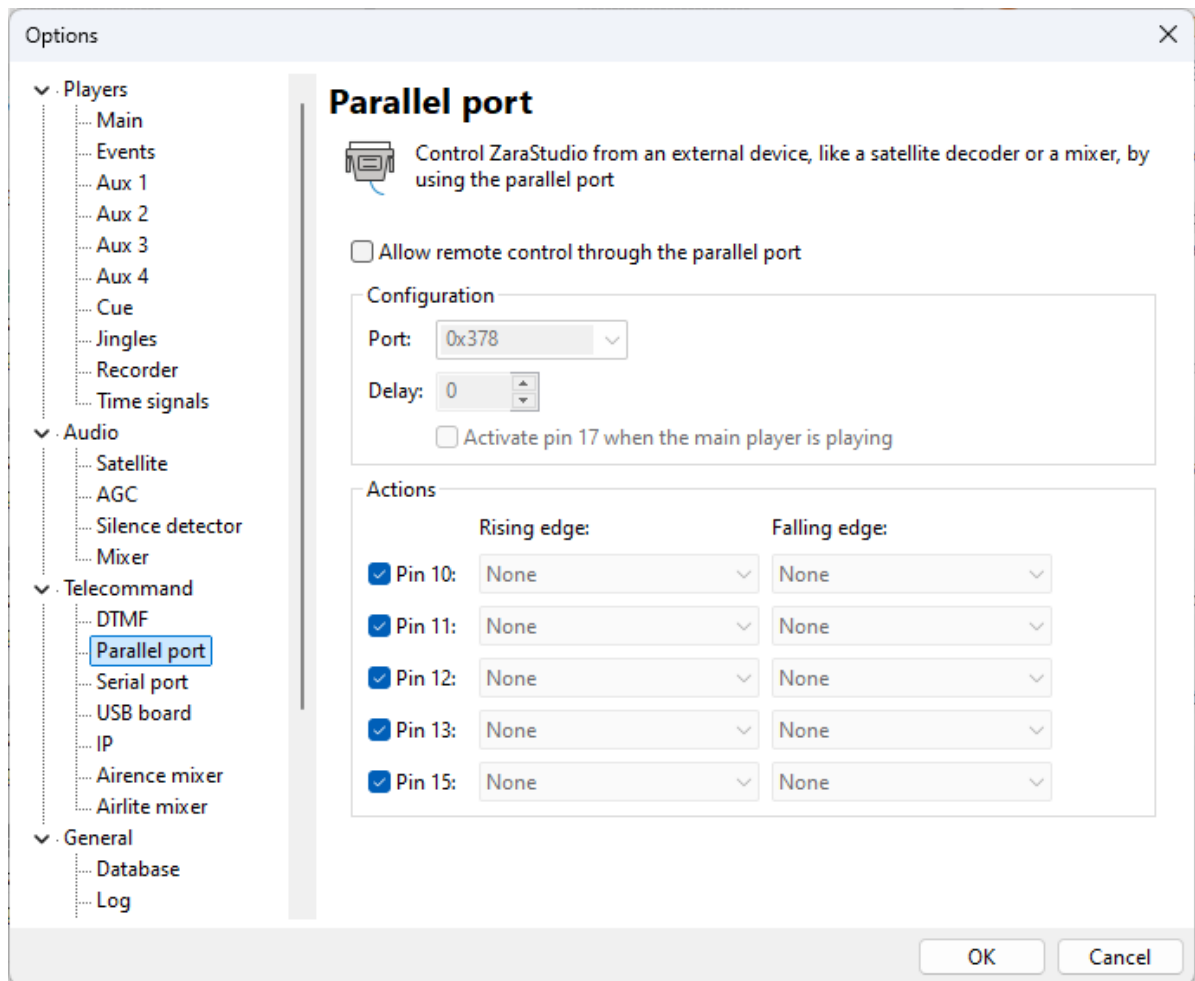
In order to solve the disconnection, we are going to create a sequence with a countdown command and four ads. To insert the command, go to **Playlist > Add satellite countdown....** We will enter three minutes in the dialog that will appear (00:03:00). Now, let's insert four ads after the command. Then, we will get a list as the following one:

Description	Length
 Satellite connection countdown (03:00.0)	
 id	00:04.3
 id	00:04.3
 id	00:04.3
 id	00:04.3
 id	00:04.3

Now, save the list as a sequence and schedule it as a delayed event some minutes before the estimated disconnection time. When ZaraStudio receives the disconnection tones, it will play the sequence we have just created. In first place, the countdown will start and, while it reaches zero, the ads will be played. When the sequence is finished, it will go to the main playlist and will play its contents until the three minutes are reached. In that moment, it will reconnect automatically.

ZaraStudio also considers the possibility of making local programs, in which you want to ignore the tones sent by the mother station. When that situation happens, you can insert commands in the list or in the events to enable/disable the DTMF tone detector.

8.3.2. Parallel port

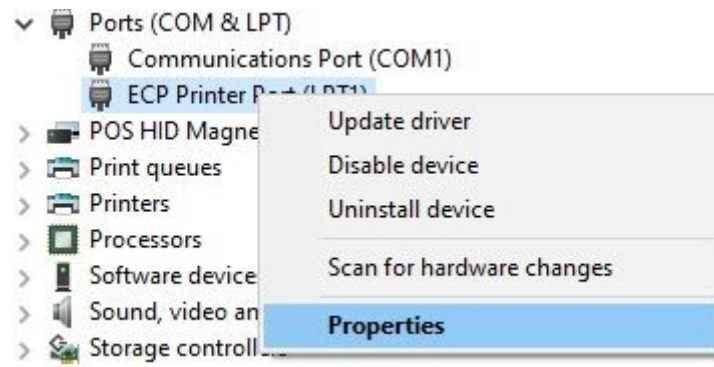


It is possible to control ZaraStudio with external devices, like a mixer or a satellite decoder, by using the PC's parallel port. These devices produce pulses or contacts that fire a specific action when are detected in the computer, like connecting to another station.

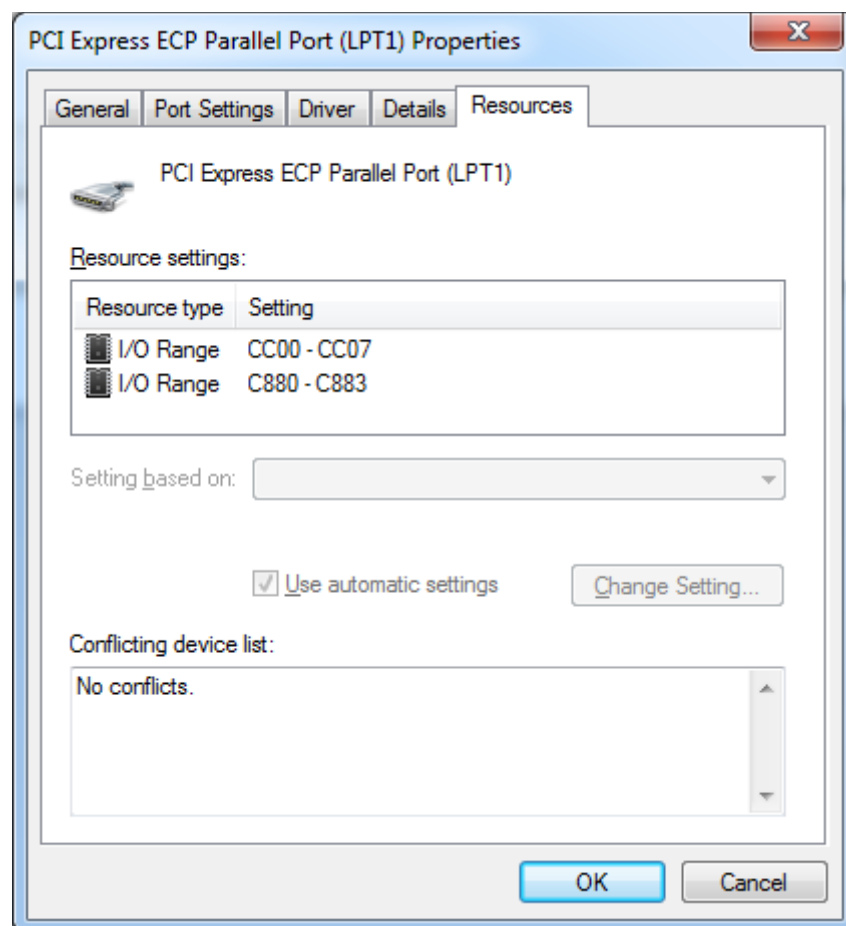
Starting from Windows Vista, for this feature to work correctly, you have to run ZaraStudio as an operating system administrator at least once, as it is needed to install a driver to access to the parallel port.

Currently, this features works on both 32 and 64-bit systems. It works with built-in parallel ports and with PCI or PCIe cards. However, **it is not compatible with USB converters**. This is not a limitation of ZaraStudio but rather of this type of converter, which is designed exclusively for use with old printers.

To enable this function, you must activate the option **Allow control through the parallel port**. Once this is done, select the port you wish to use to control ZaraStudio and configure its address. To find this information, go to the Windows **Device Manager**. Then, right-click on the parallel port device, which should appear under the **Ports** section, and select **Properties**:

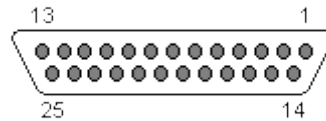


This will open a dialog box. Navigate to the **Resources** tab and check the address listed first in the **I/O Range** row:



In the example image, the address would be **CC00**. For ZaraStudio to interpret it correctly, you must also add the prefix "0x" (with the number zero as the first character), so in this case, it would be **0xCC00**.

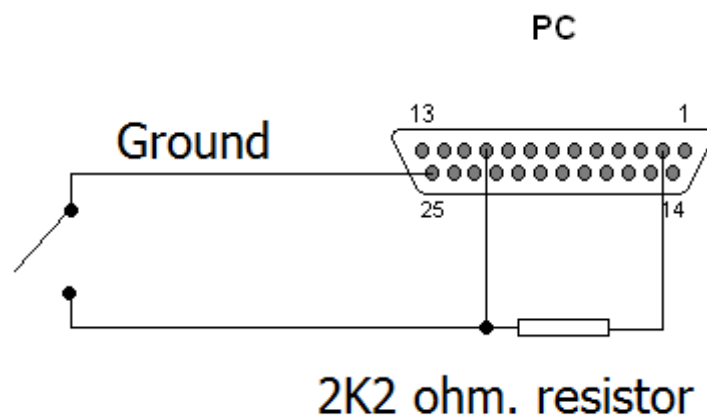
Now, you have to configure the actions you want to execute when a pulse or contact is detected in the parallel port pins. This is the pin distribution in the connector:



We are going to use only pins 2 to 9 and pins 10, 11, 12, 13 and 15. The former are output pins, that is, the computer writes on them, while the latter are input pins, that is, the computer reads them.

Each pin has two different signal states: high (5 volts) or low (0 volts). A voltage change from low to high is called a rising edge, while the contrary case is called a falling edge. ZaraStudio can detect both cases and it carries out the action specified by the user in each case. Besides, there are always 5 volts in pins 2 to 9 (this is only true while ZaraStudio is running) and in pin 25 we always have ground (0 volts).

Now, let's see how to make the physical connection. Suppose we want to connect a decoder that makes a contact when there must be local programming and the contrary in national programming. This is a possible way to make such a connection:



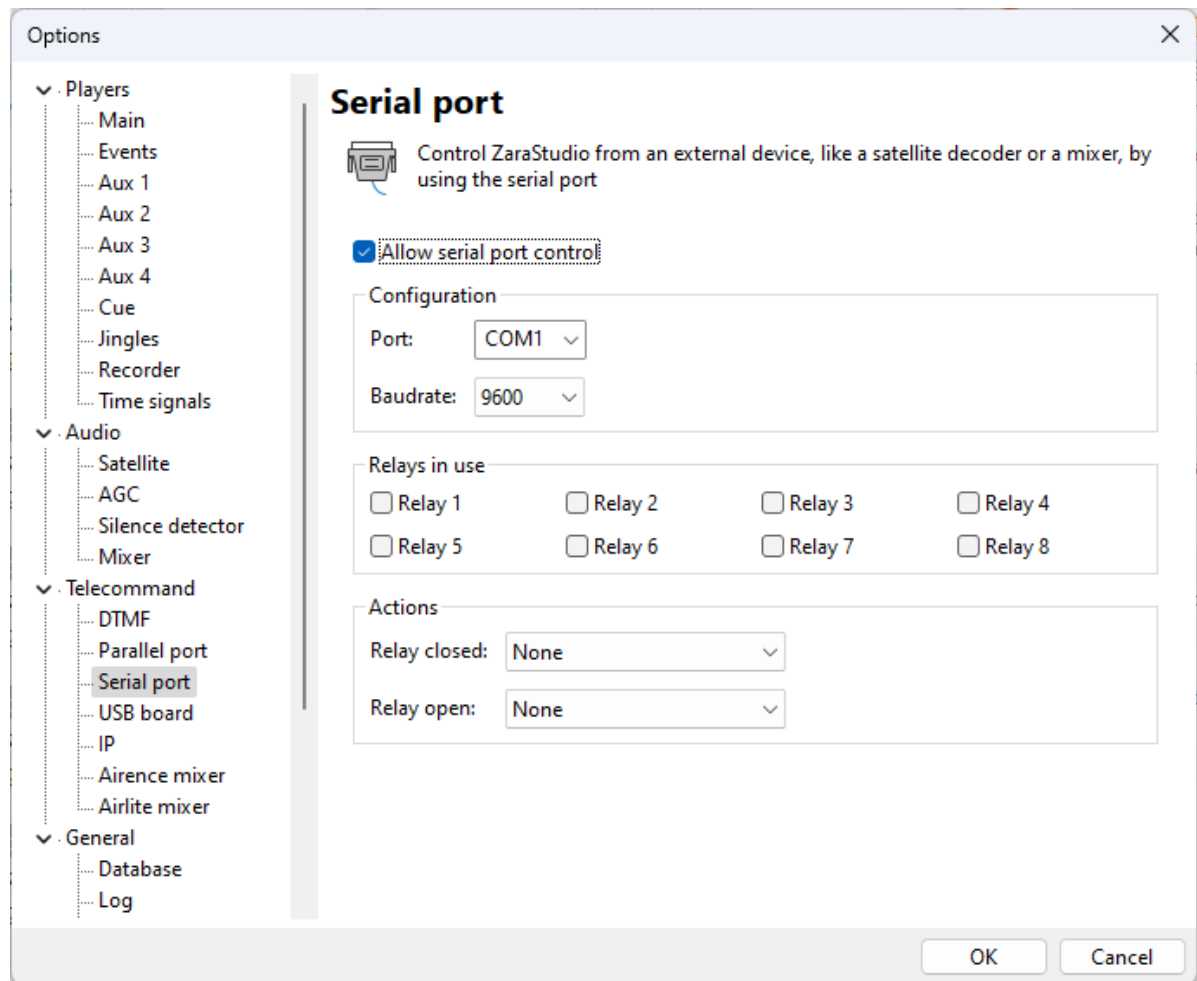
Let's see how the circuit behaves on each case:

- **Local programming:** the switch at the left is closed, so pin 10 is connected to ground (0 volts). The pin will be in low level.
- **National programming:** the switch will be open and pin 10 will be connected to pin 2, which has 5 volts, through a resistor, so pin 10 will be in high level.

So, when switching from national programming to local one, a falling edge will be made (in this case we would select the **Disconnection** action in the options dialog), while, on other hand, a rising edge will be made (in this case we will select the **Connection** option).

Feel free to contact us if you have any questions about how to connect a specific device.

8.3.3. Serial Port



ZaraStudio allows telecommand reception from a satellite receiver through the computer serial port, without needing a physical relay box device.

This system works through 8 virtual relays, whose state is received from the mother station by means of the serial port. In order to use this feature, you have to check the **Allow to control the program through the serial port** option. Then you must set the port you want to use to establish the communication:

- **Port:** Indicates the serial port number to use. This field allows writing, in case you need to type a special port number.
- **Baudrate:** Speed at which communication will be established. This speed should be the same as the one set in the mother station to send the information. Otherwise, reception errors might happen.

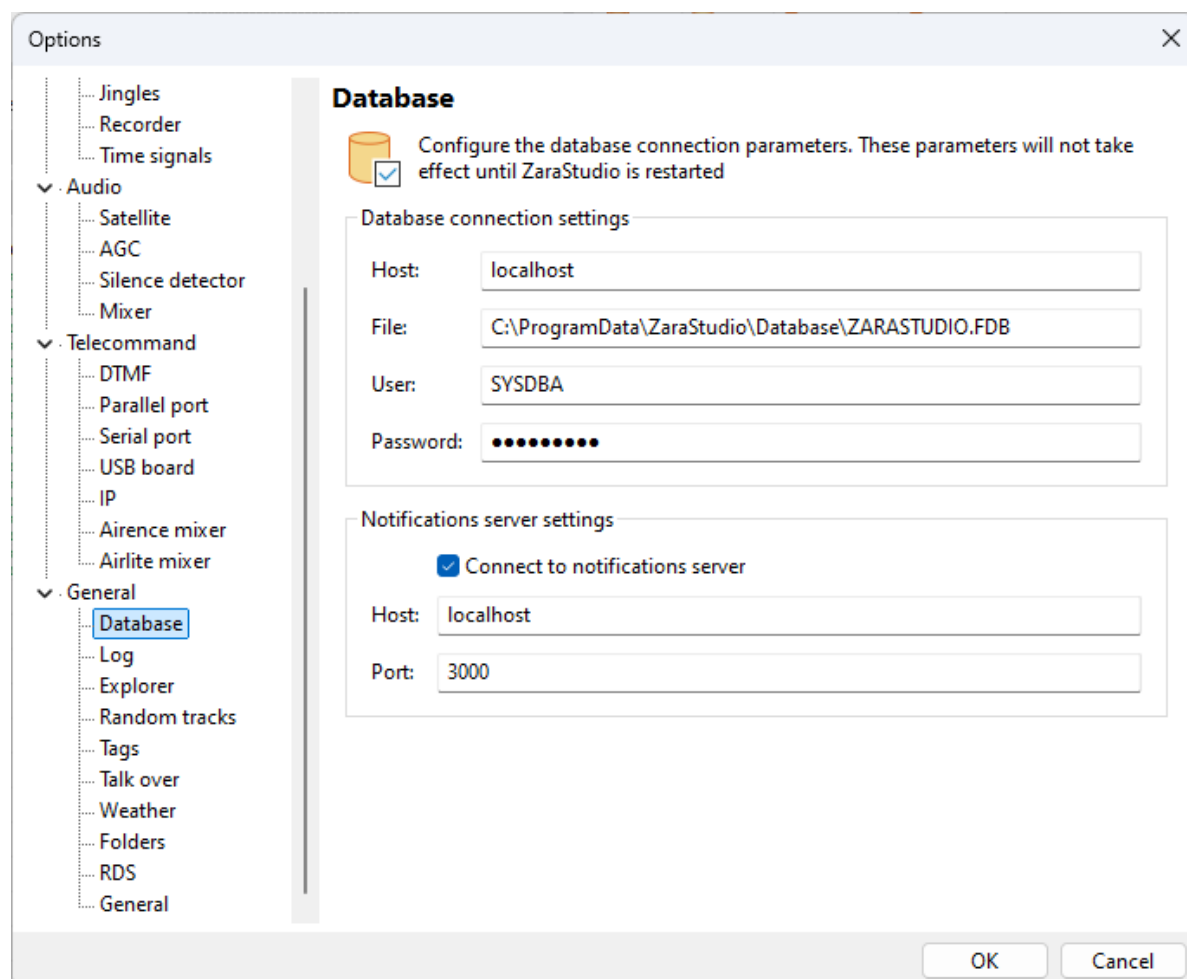
Once you have set the connection parameters, you have to select the relays you want to use. ZaraStudio will ignore orders coming from non-selected relays. This lets the mother station send disconnection commands on a selective way to a station or group of stations without the rest noticing.

Finally, you have to choose the actions that will be carried out every time a relay is closed or opened. There are several options:

- **None.** The application will carry out no action.
- **Connection to channel 1-10.** Reconnects to the network through the line-in input of the sound card corresponding to the selected channel (or streaming signal if configured as such), stopping the playback of local audio.
- **Disconnection + List.** Interrupts the audio coming from the satellite and starts the main playlist audio playback.
- **Disconnection + Events.** Interrupts the audio coming from the satellite and starts pending telecommand events playback.
- **Playlist.** Starts playing the main playlist.
- **Events.** Plays pending telecommand type events. If there are no pending events, it does not interrupt the sound from the satellite and ignores the disconnection.
- **Stop.** Stops playback.

8.4. General

8.4.1. Database

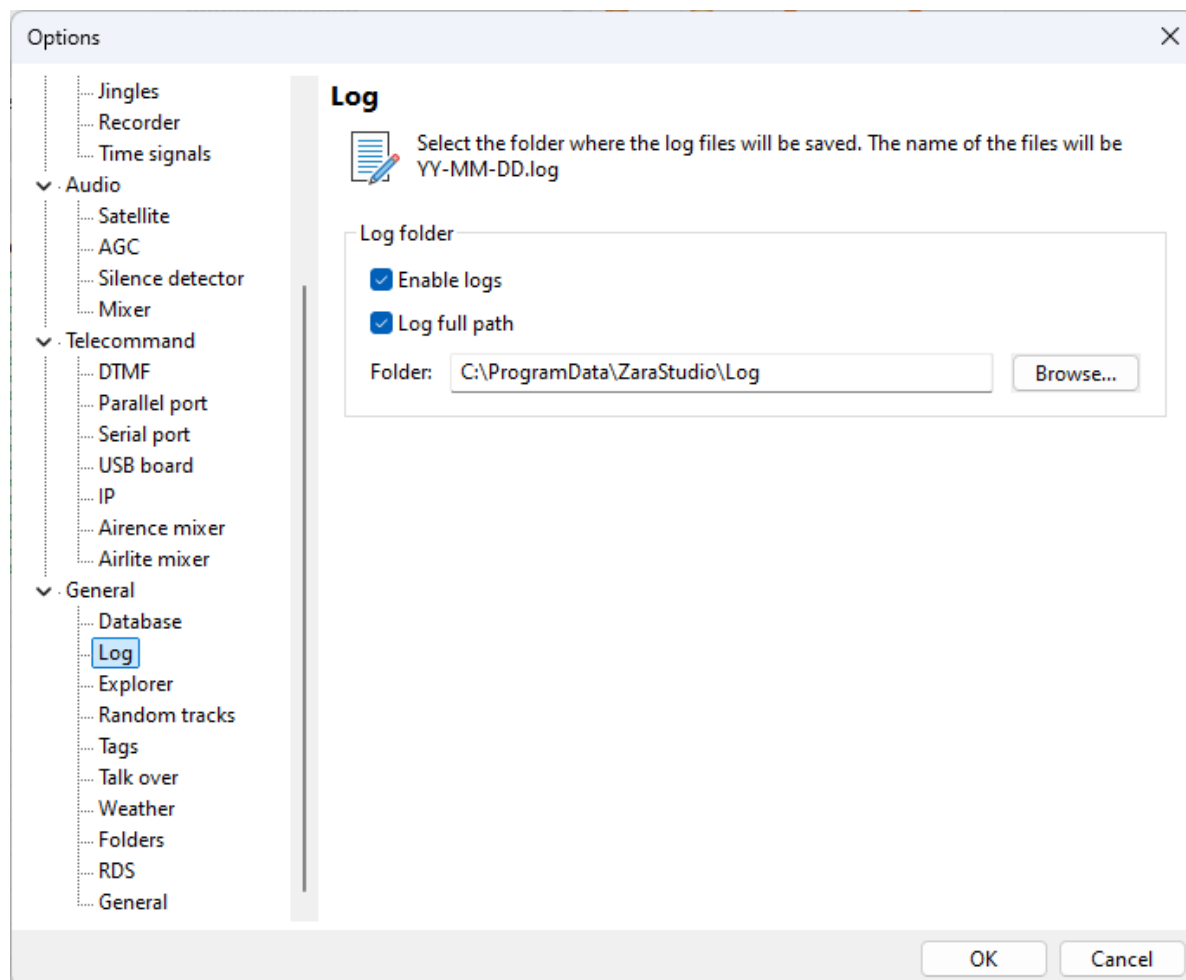


This window allows you to set the Firebird database connection parameters.

It also enables you to configure the connection to the notifications server. The notifications server makes it possible to keep the database information synchronized in all the network terminals running ZaraStudio. When a user makes a change in an audio in a terminal, this terminal sends a message to the notifications server, which, in turn, distributes this message to all the other terminals and the information is automatically updated.

The standard settings are usually valid for most installations.

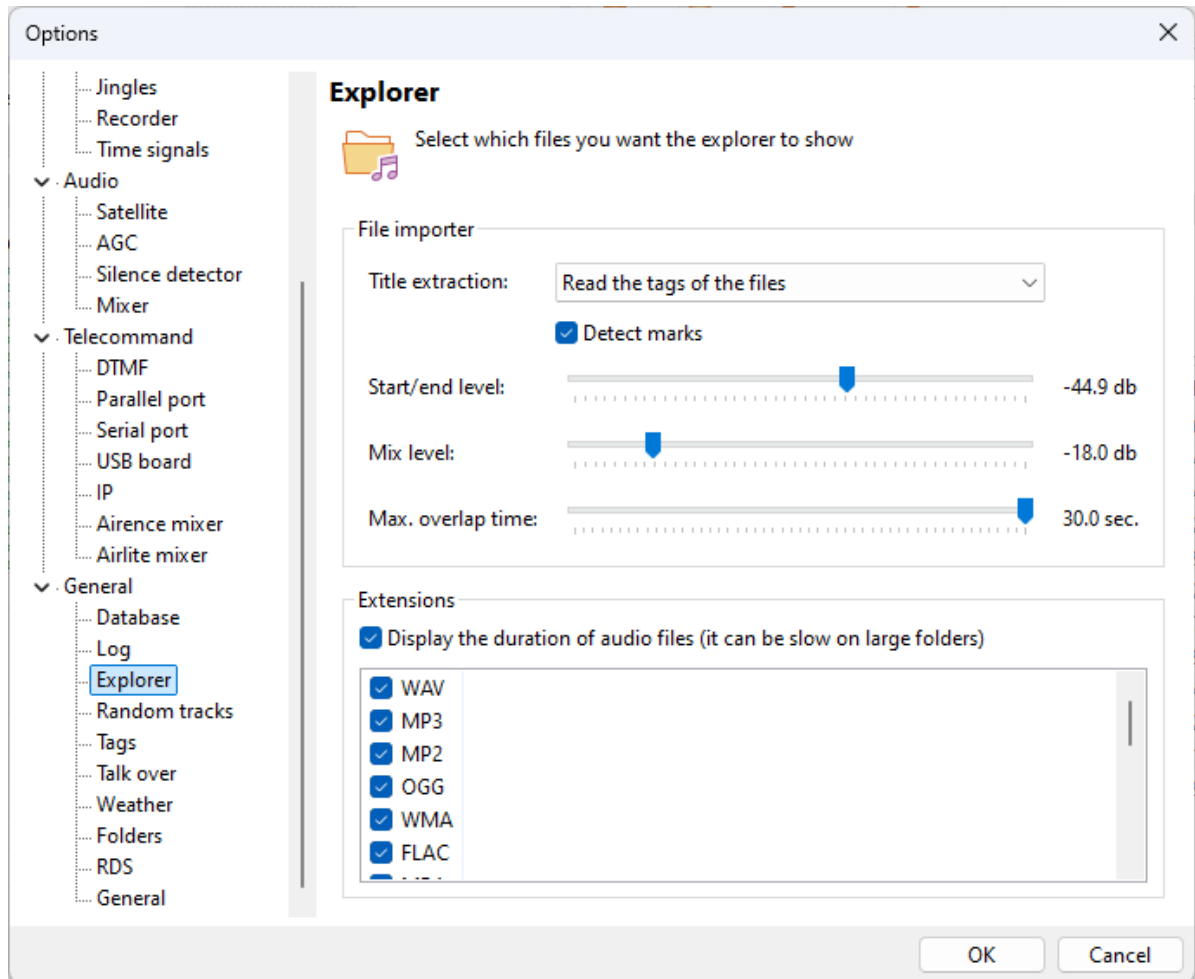
8.4.2. Log



It allows you to configure log files. ZaraStudio stores the time at which each is audio is played in these files, warning also of possible errors. Prelists are not logged (unless an error happens), in contrast to the jingle palette audios. By default, both the primary and secondary instances write messages to the log file. If you don't want secondary instances to log, then check the option **Log only when using the first instance**.

Log files are text files, but with the *log* extension. They can be opened with any text editor, such as Notepad. It is generated one log file per day, for them to be easy to handle. If you want to find a concrete event, you can browse these files through a tool called **Auditor**, reachable from the **Tools** menu.

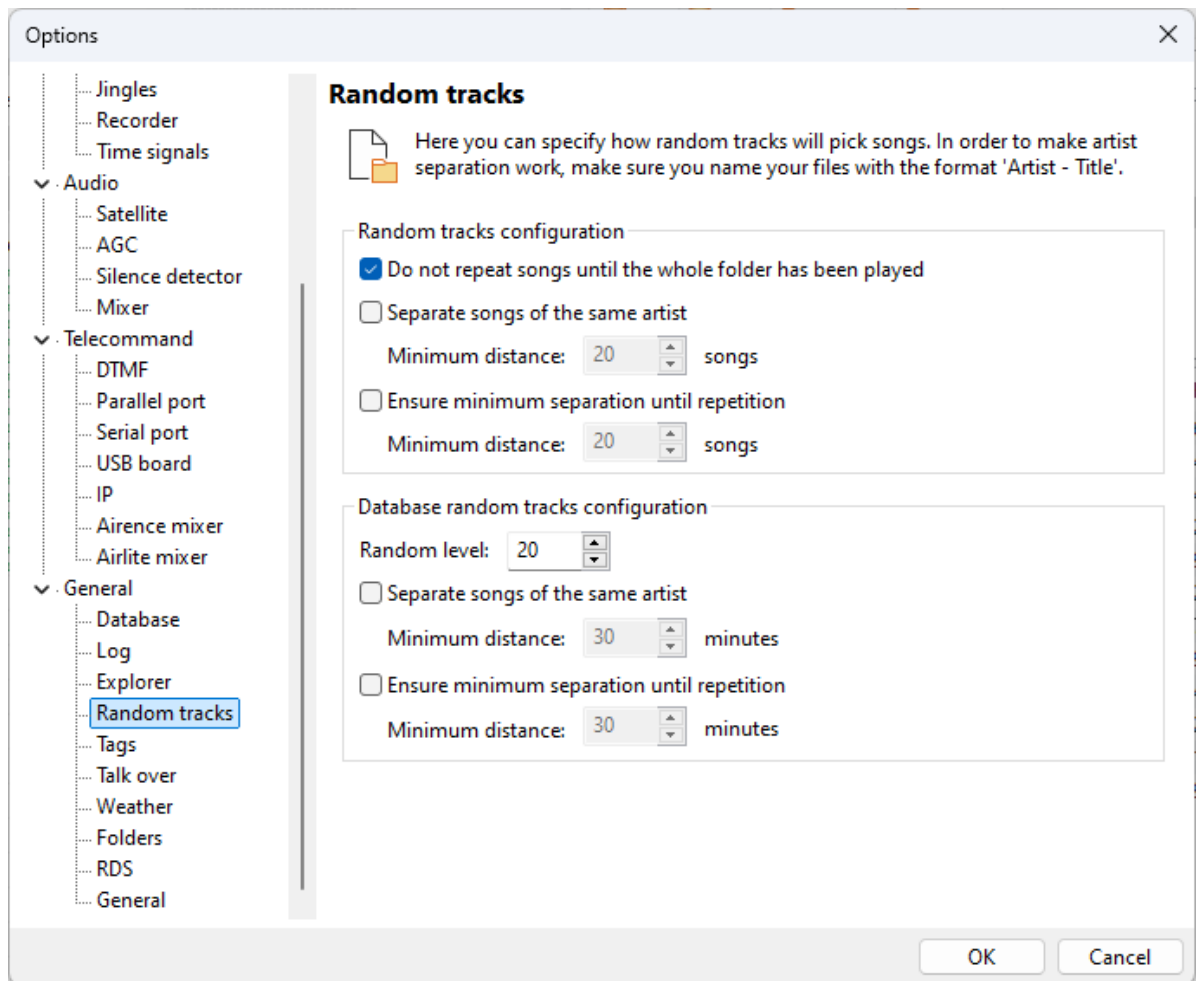
8.4.3. Explorer



It allows you to configure several parameters related to the audio explorer:

- **File importer.** Indicates how files are processed when they are imported to the database.
 - **Title extraction.** ZaraStudio uses the file names to fill out the Artist and Title fields, as long as they are named with the “Artist – Title” convention. If it is not the case, you can also take that information from the files ID3 tags.
 - **Detect marks.** When this option is checked, ZaraStudio scans the files to find out their optimum mix marks, taking into account the audio levels set above. It works in the same way as the ZaraOverlap tool. If this option is not checked, ZaraStudio will take the marks from the file name, as long as they have been set manually with the ~ symbol.
- **Extensions.** Indicates what kind of files will be displayed in the hard disk audio sources.

8.4.4. Random tracks



This page of the options dialog allows to customize the way in which songs are picked when using random tracks from folders (**Playlist > Add random track...**) and from the database (**Playlist > Add database random track...**):

- **Random tracks from folders**

- **Do not repeat songs until the whole folder has been played.** ZaraStudio will choose a file from the folder randomly, but it won't repeat any one until all files it contains have been played. It does not guarantee a file is not played twice in a row, though it is quite difficult for that to happen in folders with lots of files.
- **Separate songs of the same artist.** When enabling this option, it won't repeat any artist until the random track has been played as many times as specified in the numeric field which is just under the option. For this system to work properly, it is necessary to have the files named with the format 'Artist - Title' (without the quotes). For example, a file correctly named would be `Alicia Keys - No one.mp3`.
- **Ensure minimum separation until repetition.** When activating this option, it is

guaranteed that a song won't be repeated, at least, until the random track has been played as many times as specified in the field just under the check box.

- **Database random tracks**

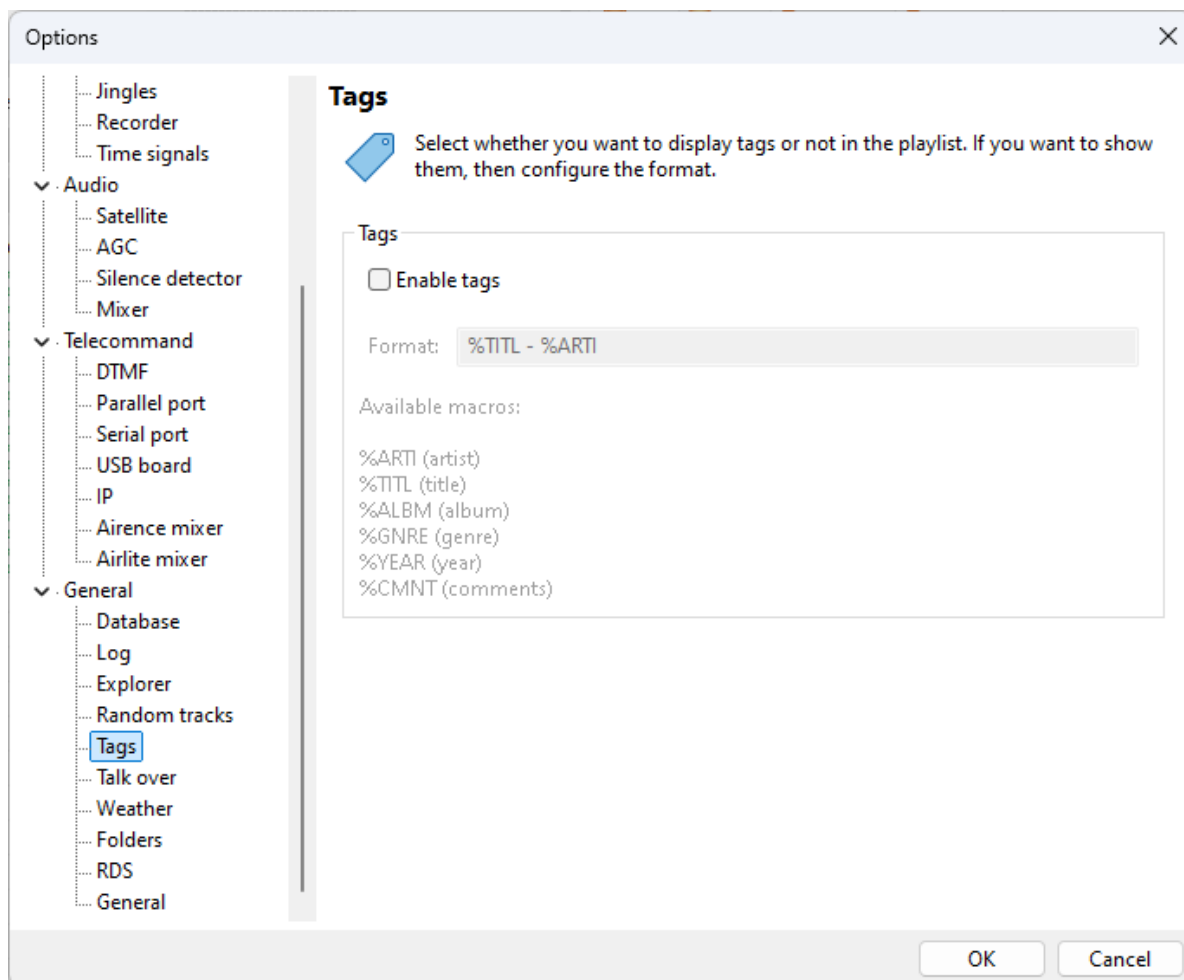
- **Random level.** Indicates the randomness percentage of the music selection. It can vary between 0%, providing a fixed music sequence without any kind of randomness in which the song with longer rest time is always chosen, and 100%, providing a totally random music sequence in which all the songs are candidate to play, as long as they meet the separation requirements. For example, with a 20% random level, the selection would be done over the 20% of the songs with longer rest time.
- **Separate songs of the same artist.** When this option is checked, ZaraStudio will not repeat an artist until the specified amount of time has elapsed (up to a maximum of 1440 minutes). Note that, in this case, the separation is indicated in minutes rather than songs.
- **Ensure minimum separation until repetition.** When this option is checked, a song will not be repeated until the specified amount of time has elapsed.

Keep in mind that the more restrictive the selection is, the longer it will take it to do it and the chances of repetition increase, since in case of some criterion can't be met, a track will be repeated randomly.

Besides, we recommend to use database random tracks for music programmings, as they have the following advantages:

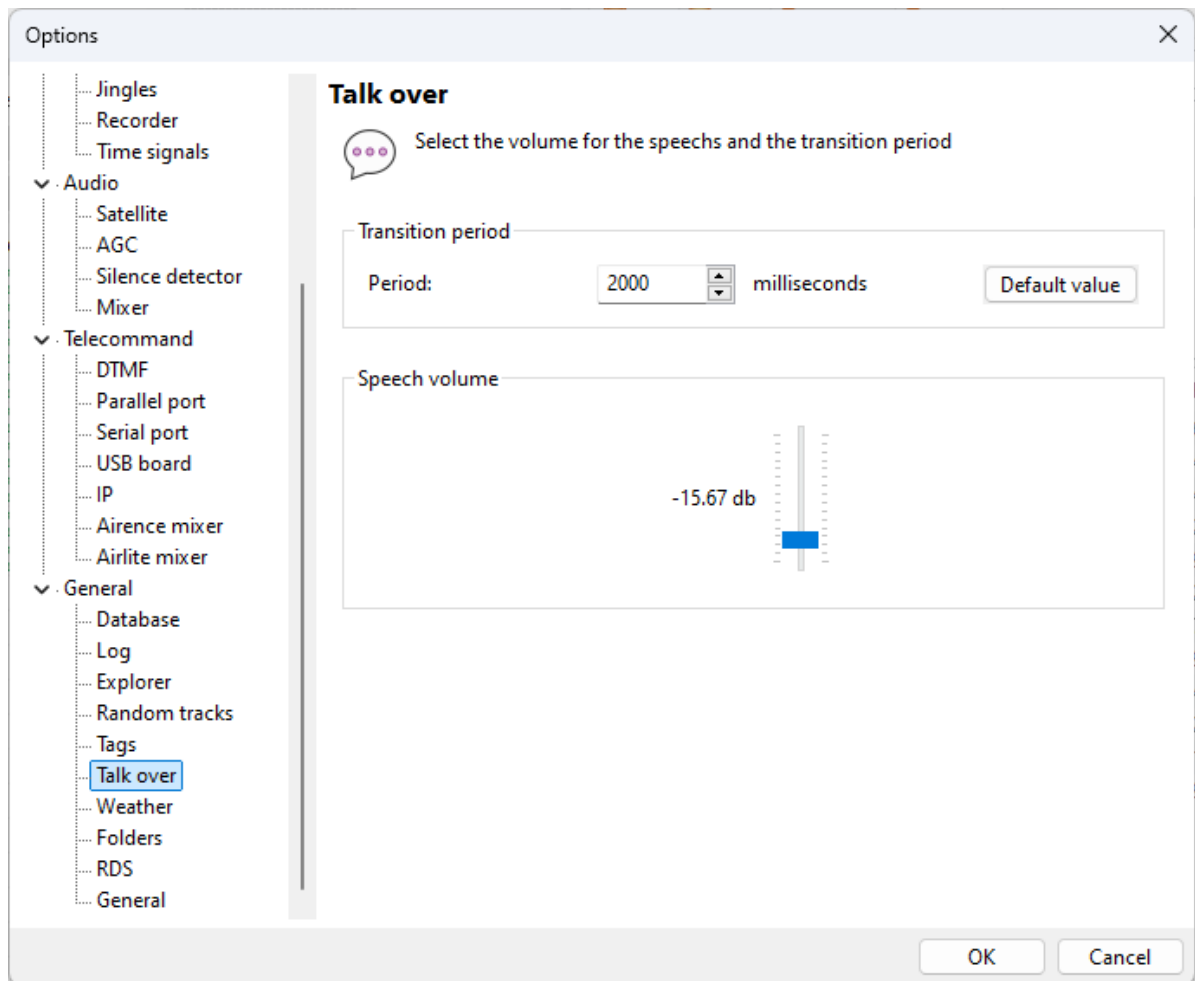
- The songs are chosen faster.
- The system remembers the date and time when every song was last played, while plain folder random tracks only remember the last played songs.
- You can use the random level feature, which is more flexible and generates less conflicts than forcing the playback of all the folder songs before repetition.
- You can use network folders.

8.4.5. Tags



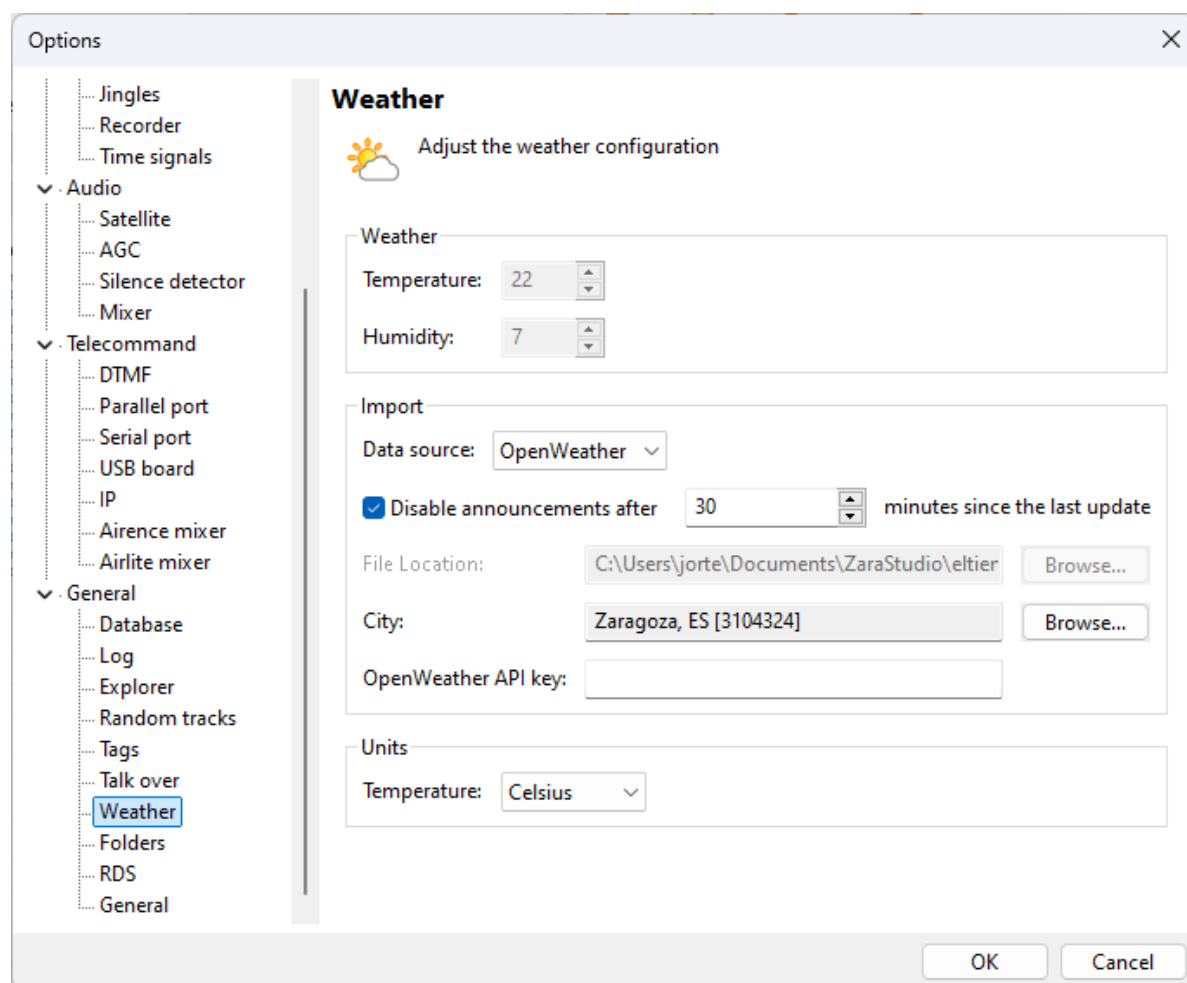
By default, in the playlist are the names of the files. Nevertheless, for MP3 files, it is possible to show ID3 tags. In order to show them, simply check **Enable tags**. Type the desired info macros (listed below the box) into the Format box. The tag info represented by the macros will appear in the playlist in the order listed in the Format box.

8.4.6. Talk over



Here you can set the level to reduce the currently playing track to when Talk over is activated. Also, time to reduce the level can be set here. These parameters are set for both voice tracking and the talk over button, located on the bottom button bar.

8.4.7. Weather



It allows you to configure the data for temperature, humidity, wind speed and direction, and sky conditions. ZaraStudio can import this data from any application via a text file or retrieve it automatically from the OpenWeather website. To do so, you must choose the corresponding option from the **Data Source** dropdown menu.

If you choose to collect data from a text file, you must configure the folder where the file is located through the **File Path** field. The file format should be as follows:

```
[weather]
temperature=<temperature>
degreeType=<C (for Celsius) or F (for Fahrenheit)>
humidity=<humidity>
```

For example:

```
[weather]
temperature=17
degreeType=C
humidity=32
```

If you choose the OpenWeather option, you must select the **City** for which the data will be downloaded. ZaraStudio is pre-configured with an access key for OpenWeather, limited to a maximum number of requests per minute, which is shared with other ZaraStudio users. If the maximum number of requests is exceeded, the weather data download will fail. To avoid this issue, it is recommended that you register on OpenWeather and obtain your own private key to download the weather data. You can do this by visiting the website <https://openweathermap.org/api>. Then, subscribe to the **Current Weather Data** option.

Current Weather Data

[API doc](#)[Subscribe](#)

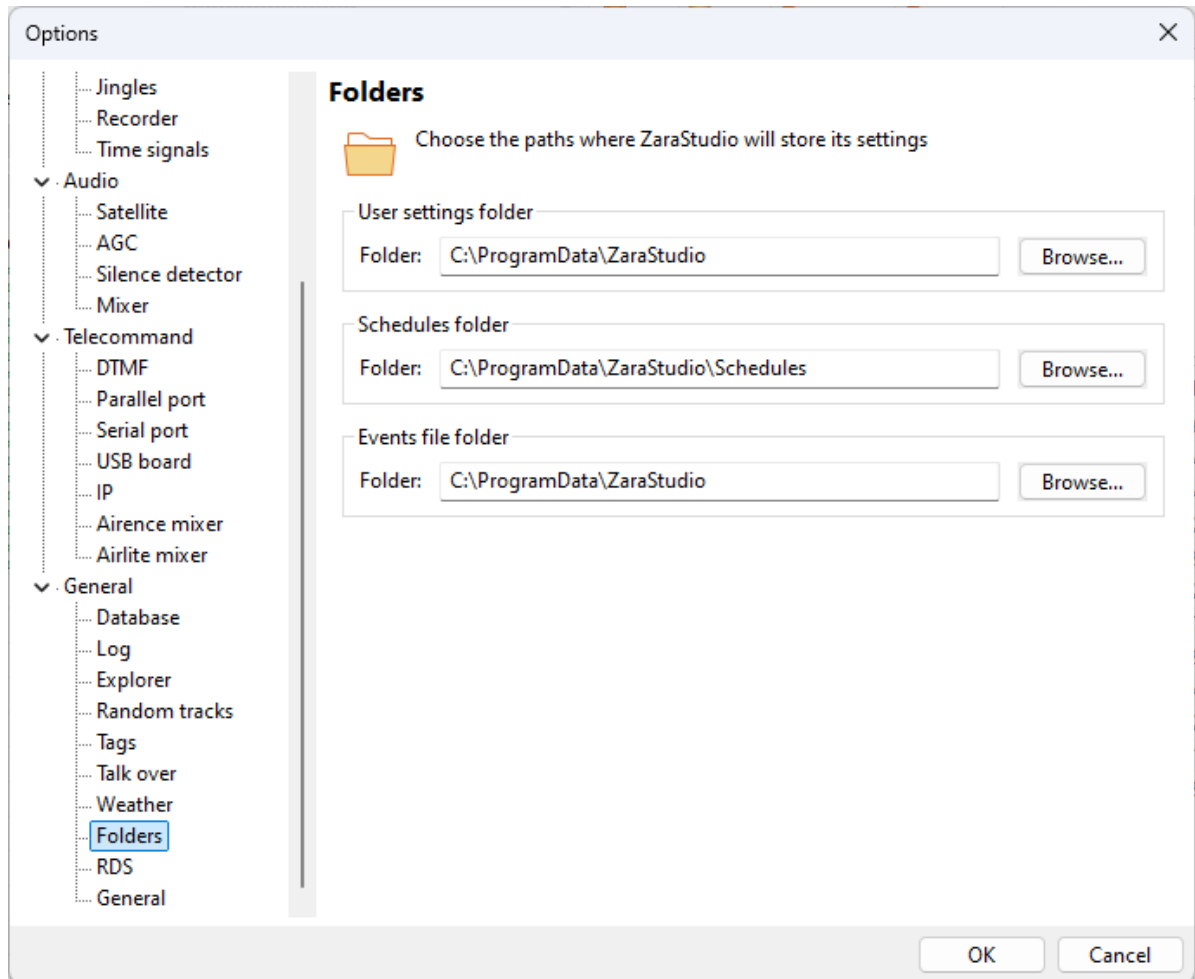
- Access current weather data for any location
- We collect and process weather data from different sources such as global and local weather models, satellites, radars and a vast network of weather stations
- JSON, XML, and HTML formats
- Included in both free and paid subscriptions

Once this is done, you can specify your key in the **OpenWeather API Key** field.

Finally, you can configure the units in which the temperature will be displayed, with options for Celsius and Fahrenheit.

A potential issue that might arise is losing the internet connection at night, which could result in broadcasting incorrect weather data. To address this, you can set ZaraStudio to not broadcast the temperature and humidity announcements if the application collecting the data has not updated the file for a certain period of time. To do this, check the box **Disable announcements...** and specify the maximum validity period for the weather information.

8.4.8. Folders



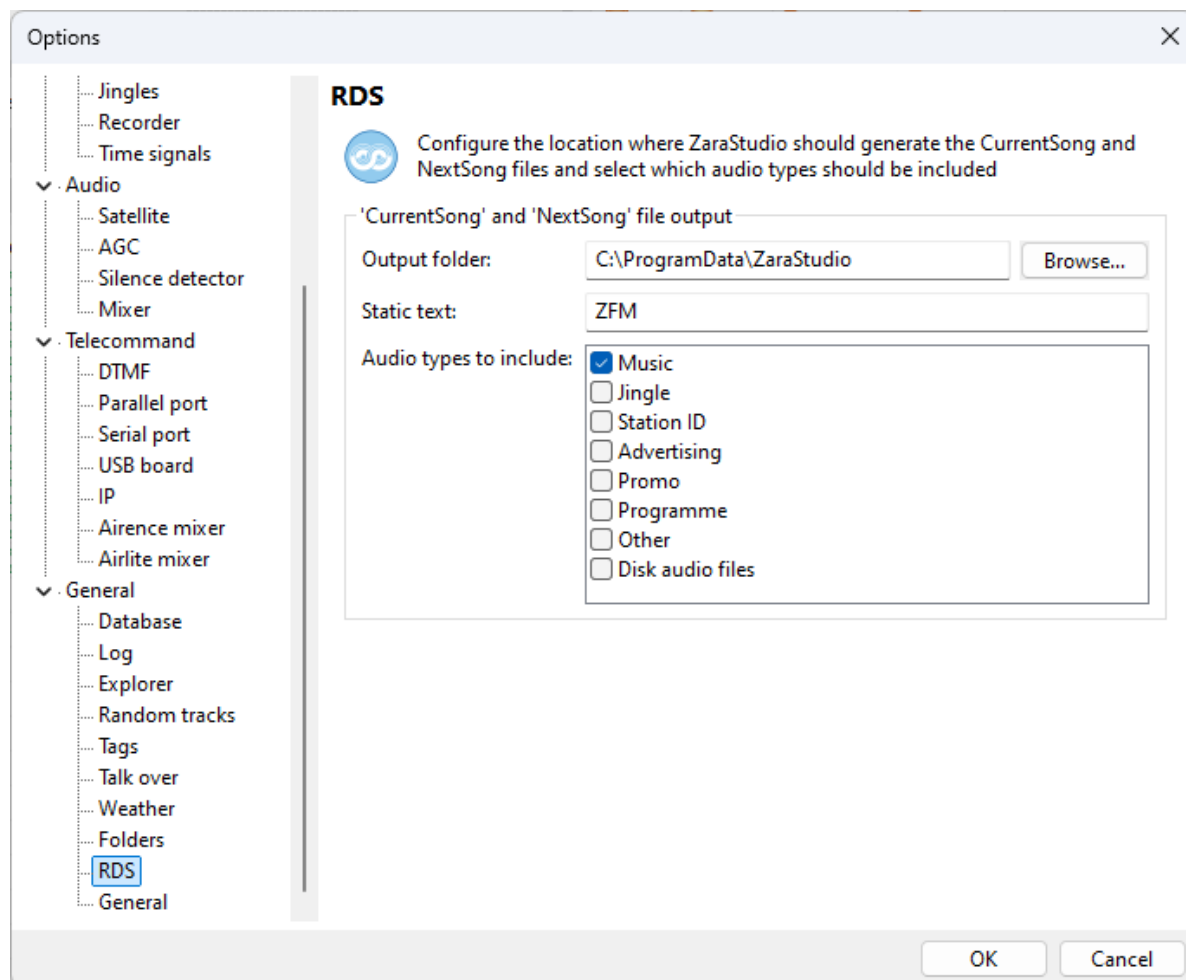
This window lets you set the folders that will be used by several modules of the application:

- **User settings folder.** There are certain preferences in ZaraStudio, such as the layout of the players or the font size, that are independent for each user. Through this option, you can specify the folder where the application's user profiles will be stored. If you have a network installation with multiple terminals, we recommend that this path points to a shared folder on the local network and is the same on all PCs. This way, when users access ZaraStudio, they will retain their preferences across all terminals.
- **Schedules folder.** Indicates the folder in which commercial schedules generated with the **Schedule editor** are stored. Similar to the previous option, if you have a network installation and all the stations share the same schedule, you may want this path to point to a shared folder on the local network.
- **Events file folder.** Indicates the folder where the events file (`events.ini`) will be stored. Events are now stored in a file rather than the registry.

All these paths may point to network shared folders. This is useful when you have several

ZaraStudio terminals in a local network and you want to share the settings among them.

8.4.9. RDS

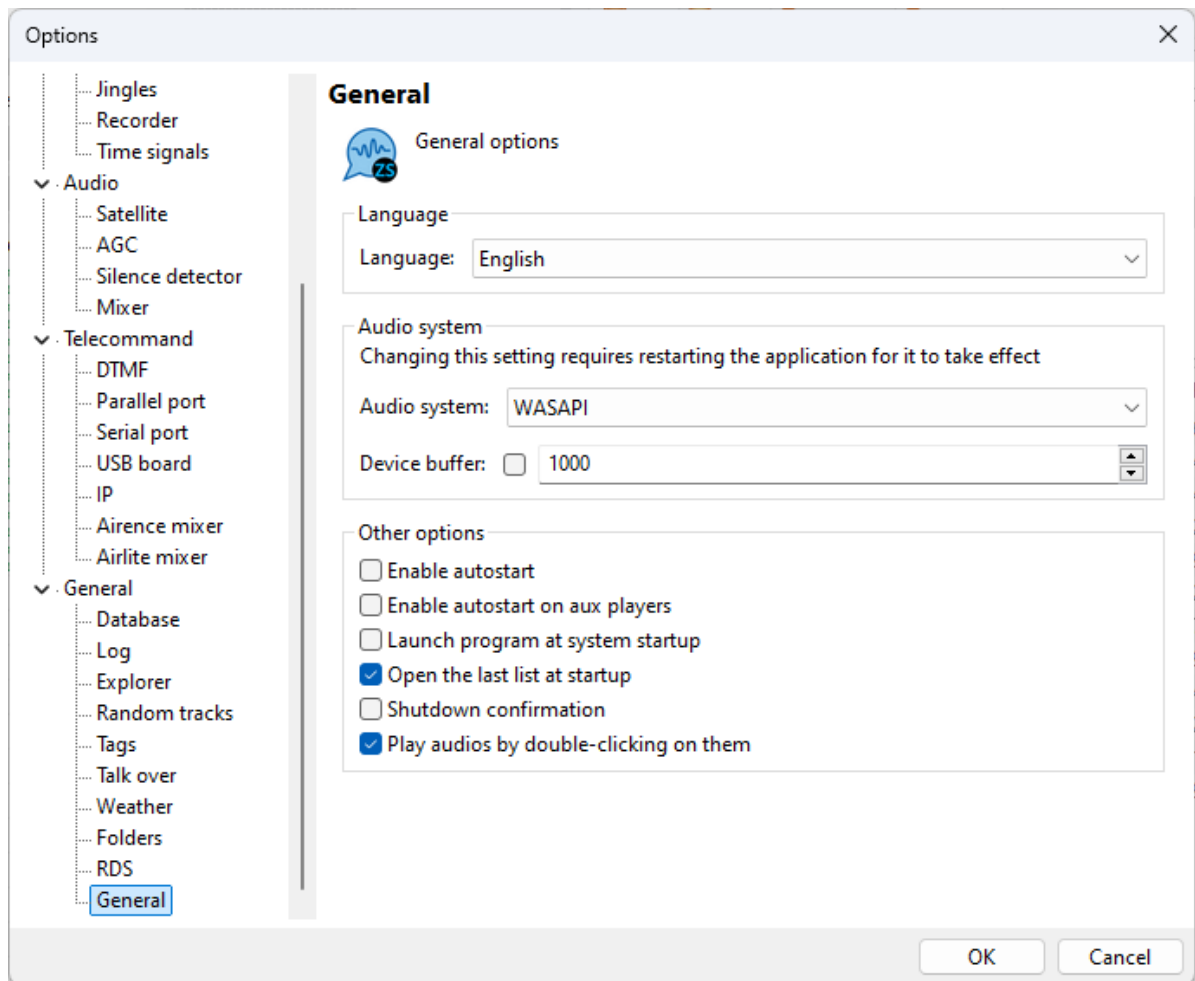


ZaraStudio generates two text files, CurrentSong.txt and NextSong.txt, containing the title of the currently playing audio and the following one. These files can be used, for example, to display its information in the RDS radiotext or on the website of the station. This window allows you to configure various aspects of these files:

- **Output folder.** Indicates the folder in which these files will be generated.
- **Static text.** The text contained in this field will be displayed when an audio file whose title should be hidden is being played.
- **Audio types to include.** Indicates the database audio types whose titles should be displayed in the files. The static text will be displayed with unchecked audio file types.

Please, take into account that ZaraStudio only generates the text files needed to feed the RDS encoder, but it does not send this information to the physical device. It does not generate the RDS signal either.

8.4.10. General



In this screen, you can configure various general options for ZaraStudio. It is also possible to make adjustments to the audio system in case you experience playback issues:

- **Audio System:** Allows you to choose between WASAPI (the system used in Windows since Windows 7) or DirectSound (the system used in Windows XP).
- **Device Buffer:** Allows you to configure the size of the internal buffer for the audio engine. A larger buffer size results in more delay in playback, but a lower chance of micro-cutouts. This option may need to be enabled when working with audio over the network using the Dante protocol.

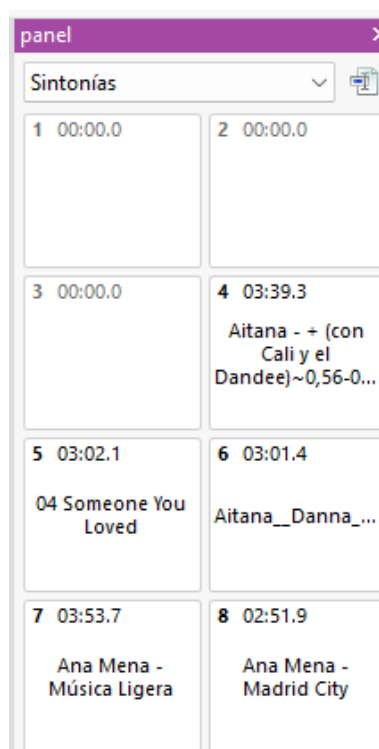
Other ZaraStudio options:

- **Language.** Language of the user interface. This option only takes effect when ZaraStudio is started.
- **Enable Autostart.** Causes ZaraStudio to automatically play the playlist when the program is opened.

- **Launch program at system startup.** Runs ZaraStudio after system startup automatically.
- **Open the last list at startup.** If checked, Windows remembers the playlist that was active when ZaraStudio was closed and reloads that list when ZaraStudio is reopened.
- **Shutdown confirmation.** When leaving the program, it asks the user if he really wants to quit the program.
- **Play tracks by double-clicking on them.** By default, when double-clicking an item in the playlist, the green marker moves to that item, indicating it is next up. By activating this option, the track plays immediately when double-clicked, not waiting for the currently playing track to end.

9. Hot keys (former audio palette)

ZaraStudio has a hot keys system that allows you to trigger audio using buttons with the mouse. To do this, click the  button in the top button bar and choose the **Hot keys** option. When you do this, a new window will open, similar to a player:



This window has 20 buttons, to which you can assign different audio files that you want to trigger. It also has 10 different pages of buttons, which can be selected through the dropdown at the top, so the total number of available audios is 200. You can assign a name to each page for easier identification by pressing the  button.

To assign an audio file to a button in the palette, simply drag a file from Windows Explorer or ZaraStudio and drop it onto the desired button.

Besides, the buttons have a context menu, which can be accessed by right-clicking on them. That menu has the following options:

- **Clean button.** Resets the button, removing the audio file and leaving it empty.
- **Cue.** Prelists the audio assigned to the button.
- **Normal.** Activates the normal play mode.
- **Loop.** The audio will continue to repeat until audio button is pressed again.
- **Sweeper.** Before playing the jingle, it decreases the volume of the main playlist, restoring it when the jingle has finished.

To change the page, use the drop-down selector at the right of the palette. You can also rename a page by clicking on the button , located at the left of the page drop-down.

10. Time and weather announcements

ZaraStudio can announce the time, temperature and humidity automatically using pre-recorded audio clips. These announcements are inserted into the playlist (**Playlist > Add time announcement**) or event lists as commands. For this to work, the audio clips must be located in the folders Time, Temperature and Humidity created when ZaraStudio was installed (normally in `c:\Program Files\ZaraSoft\ZaraStudio`)

10.1. Time Folder

This folder contains audio clips of the spoken hours and minutes. There are three types of files:

- `HRSXX.mp3`, where `XX` is the corresponding hour (from 00 to 23). These files must contain audio clips that say something similar to "It's `XX`". Example: the `HRS02.mp3` file could say "Time now, 2". This will be followed by the minute file.
- `MINXX.mp3`, where `XX` is the corresponding minutes (from 00 to 59). These files must contain audio clips that say only the number of the minute. Example: the `MIN53.mp3` file would say "53". When preceded by the hour clip you have "Time now, 2:53".
- `HRSXX_O.mp3` (the last character is the letter O, not a zero). This file must contain an audio clip that says something like "It's `XX` o'clock". Example: the `HRS14_O.mp3` file would say "It's 1400 hours" for 24 hour format or "It's 2 PM o'clock" for 12 hour format.

10.2. Temperature Folder

This folder contains audio clips of the spoken temperature. There are two types of files:

- `TMPXXX.mp3`, where `XXX` is the corresponding degrees (000 to 100, for example). You only need to have audio clips for the anticipated range of temperatures. Depending on whether you use Celsius or Fahrenheit the range of numbers will vary. For example, the `TMP020.mp3` file could say "We have a temperature of twenty degrees".
- `TMPNXXX.mp3`, where `XXX` is the corresponding degrees below zero (000 to 010, for example). The `TMPN002.mp3` file could say "We have a temperature of two degrees below zero".

10.3. Humidity Folder

This folder contains audio clips of the spoken humidity:

- `HUMXXX.mp3`, where `XXX` is the corresponding humidity (000 to 100). For example, the `HUM035.mp3` file could say "We have a humidity of 35%".

11. Voice tracking

ZaraStudio can play sound files, as well as time, temperature and humidity announcements over other sound files. This is known as voice tracking.

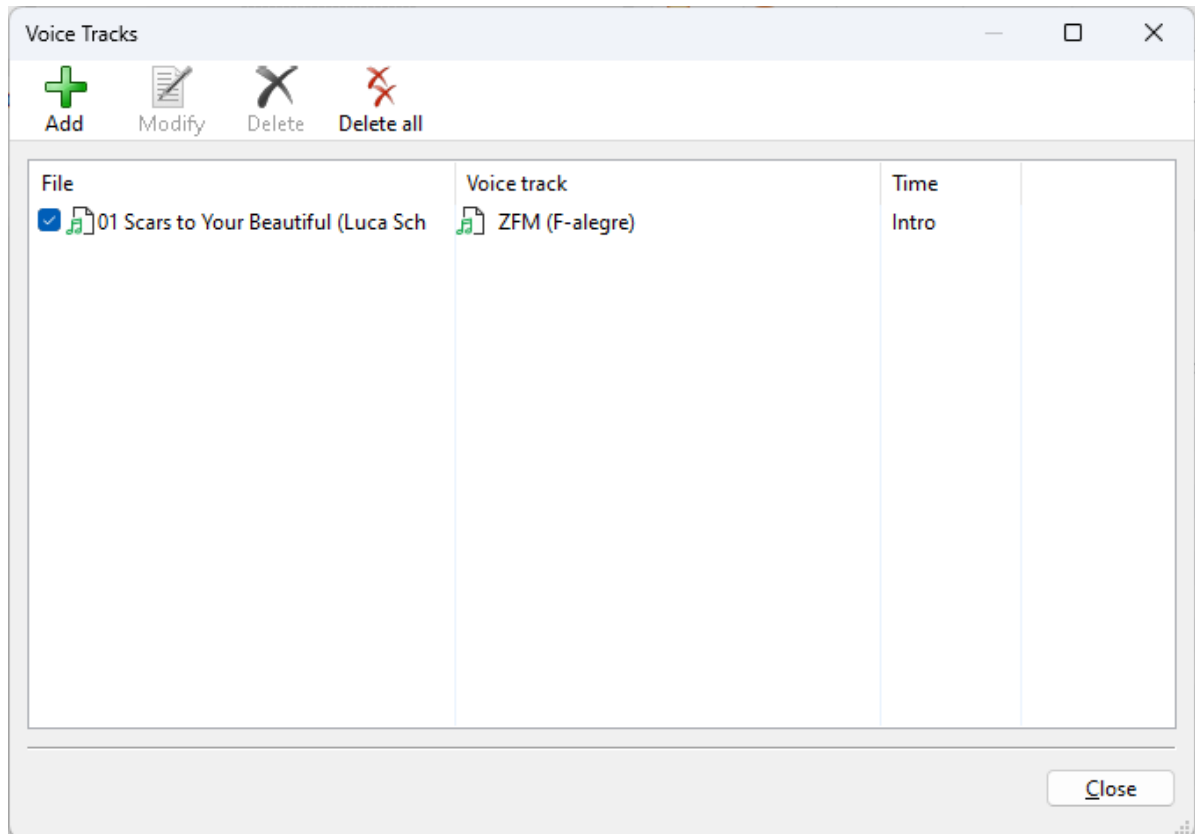
ZaraStudio has two types of voice tracking:

- **Voice tracks linked with specific audios.** Voice tracks are played every time its associated audio is played. It does not matter what list is opened.
- **Voice tracks linked with playlist audios.** In this case, voice tracks are linked with a specific playlist item. This way, the same audio can have different voice tracks in different playlists.

If an audio has both types of voice tracks, the second type will be used.

11.1. Voice tracks linked with specific audios

In order to use this feature, you have to press  and select **Voice track editor...** After doing that, the following dialog will appear:



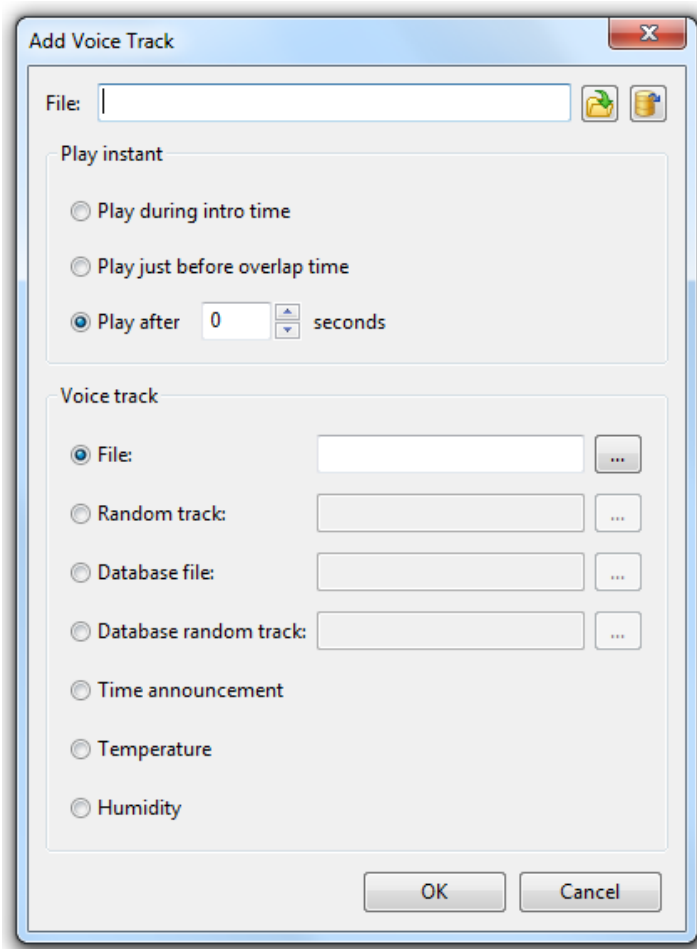
This dialog displays all the voice tracks. The first column shows the name of file on which the voice track will be played. The second column displays the voice tracks, and in the last one, the instant in which the voice track will be played. This way, you can link music files with presentations.

Every time the audios in the first column are played (in a playlist, in an event,...), the voice track in the second column will do too. If a file has more than one associated voice tracks, i.e., if it appears several times in the first column, one of them will be chosen randomly.

Besides, there are the following buttons:

- **Add...:** It allows to add a new voice track to the list. When pressing this button, a new dialog will open, in which you will be able to set the data corresponding to the columns described above.
- **Modify...:** It allows to modify the selected voice track. This button opens the dialog described in the **Add** button.
- **Delete all:** Removes all the voice tracks from the list.
- **Delete:** Removes the selected voice tracks.
- **Open...:** It allows to import a previously saved voice track list.
- **Save...:** It allows to export the current voice track list to a file.

11.1.1. Add dialog



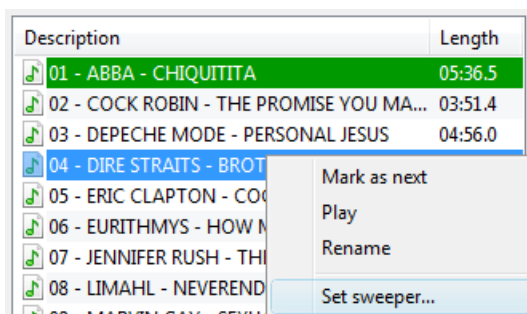
This dialog lets you link an announce with a song. In order to do that, you have to follow these steps:

1. Select the song over which you want to place an announce or voice track. You can do this by clicking the button , in case the song is located in a hard disk folder, or , in case it is stored in the database, and choosing the desired file.
2. Set the instant at which the voice track will be played. There are three options:
 - a) **Play during intro time.** If an intro time has been associated with the song, the voice track will be played during that period, so that the announce ends two seconds before the singer starts singing.
 - b) **Play just before overlap time.** The announce will be played just before the song ends.
 - c) **Play after X seconds.** It allows you to set the exact second at which the voice track will be played.

3. Choose the announce or voice track. You can do that at the bottom of the window. It may be a fixed file, a random track, a database file, a database random track, or a time, temperature or humidity announcement.

11.2. Voice tracks linked with playlist items

In order to link a voice track with a playlist item, just select the file on the playlist and press the right mouse button. A pop-up menu will display:



Then, click on **Set voice track....** After that, a dialog like the one described in the previous section will open. Enter the voice track details and press **OK**.

If you later want to remove the voice track associated with a playlist item, just open the pop-up menu and click on **Remove voice track**.

This not only may be used with specific audio files, but also with random tracks.

11.2.1. Enabling and disabling

Voice tracking can be enabled or disabled globally in the whole application through the button on the top button bar. When this button is pressed, voice tracking is enabled.



Furthermore, you can automate this task by scheduling commands or by inserting them into the playlist.

Finally, to easily identify what playlist items have an associated voice track, ZaraStudio will show their description in blue color.

12. Templates

Templates allow you to define random music programmings. This way, you can set the music styles you want to play, how often jingles are going to be played,...

A template is made up by a sequence of random tracks and/or specific audios in a certain

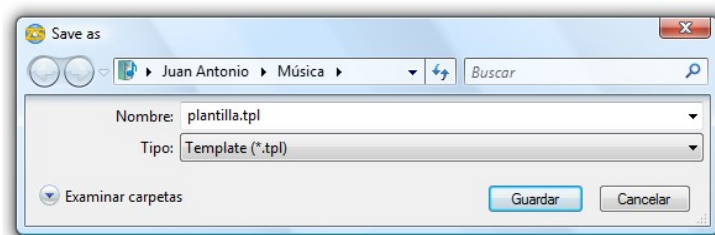
order. When a template is loaded, ZaraStudio adds audios to the playlist automatically, following the template pattern. If it finds a random track, it adds a random audio from the specified folder; if it finds a specific audio, it will be added directly. As the player plays the inserted audios, the application adds more at the end, generating an infinite playlist.

12.1. Template creation

The process of creating a template is similar to creating a conventional list, so this task can be done in any player. The following image shows an example of a template consisting of random tracks, though it is also possible to insert specific audios or even voice tracks.

Description	Length
 Top 50 'Rock & Pop' Hits of the 90's	---:--:--
 Top 50 'Rock & Pop' Hits of the 90's	---:--:--
 jingles	---:--:--
 New songs	---:--:--

Once it is created, you only have to save it. The saving process is the same as for a conventional list, except you have to choose the TPL file type in the save dialog, as shown in the following image:



12.2. Template loading

You can load a template in a player in one of three ways:

- **Manually.** In this case, you have to select **Open template...** in the  menu of the player.
- **Through an event.** Templates can be loaded automatically using an event associated to a TPL file.
- **Through a playlist.** Inserting a TPL file in a playlist, will make the template load when the player reaches that item.

Once a template is loaded in a player, ZaraStudio will add audio files to it automatically,

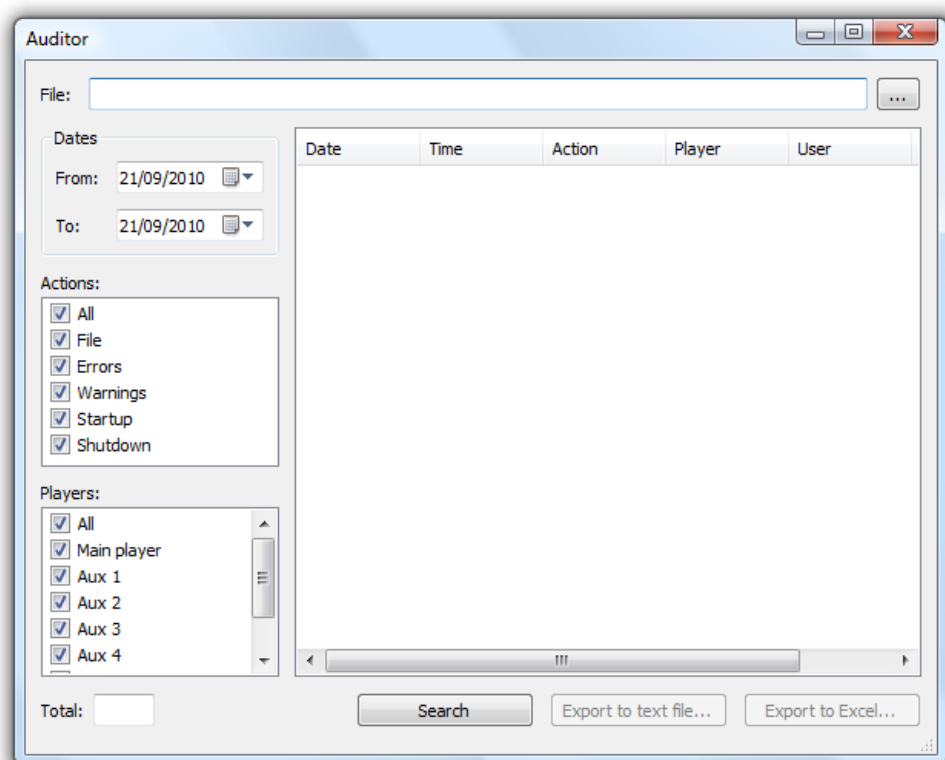
following the pattern specified by the template.

In the following image you can see how a player looks like after loading the template created in the previous section:

Description	Length
40 - Sugar Ray - Fly (November 1997)	04:52.3
02 - Better Than Ezra - Good (June 1995)	03:07.7
Jingle 2	00:07.1
Rick Astley - Never Gonna Give You Up	03:34.8
31 - The Bloodhound Gang - The Bad Touc...	04:21.3
39 - Blues Traveler - Run Around (June 1995)	04:39.9
Jingle 3	00:07.1
Modern Talking - Brother Louie	03:43.2
22 - Real McCoy - Another Night (Novemb...	03:55.7
21 - Weezer - Buddy Holly (January 1995)	02:39.3

13. Auditor

In order to open the log browser, execute the button  and select **Auditor**. After doing that, the following dialog will open:



With the auditor tool, you will be able to know at what times a file has been played, in a given

range of dates. Besides, you will be able to export your search in TXT format, to give transmission reports to your customers. You have to specify the name of the file you want to look up in the File field. It is not necessary to write the full path of the file. For example, if you want to look up a file named `c:\ZaraStudio\spots\spotZaraStudio.mp3`, typing `spotZara` would be enough.

Furthermore, you can filter your search by event type or player:

- **File:** It allows to look for the specified file, within the log files.
- **Errors:** It allows to look for all the errors such as broken files, missing files, and so on.
- **Warnings:** Limits the search to warnings, such as event deletion because maximum wait has been reached, song repetition in random tracks,...
- **Start up:** Looks for the times at which ZaraStudio has been executed.
- **Shutdown:** Looks for the times when ZaraStudio has been closed.
- **All:** It displays the full content of the log files, in the given range of dates.

Besides, you can limit the search to a specific player. Some events, like startups or shutdowns, are not linked with any player, so they will always appear, regardless of the chosen player.

After choosing what you want to find, you must choose the range of dates in which the search will be done. Then, you can start the search by pressing the **Search** button. Once the search has finished, the results will be displayed in the list.

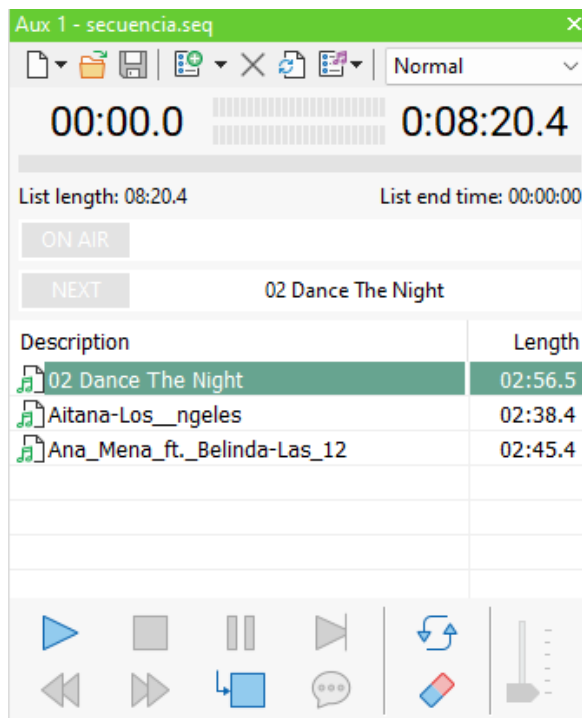
Then, you can save the list in a file by pressing **Export....** Besides, you can export it in CSV format. It is a text file, compatible with most calc sheets programs, like Excel or OpenOffice Calc.

14. The auxiliary players

ZaraStudio has four auxiliary players with almost the same features as the main playlist. In order to open this players, you have several options:

- Press the button  and select the options **Aux 1..4**.
- Press **Ctrl+1**,..., **Ctrl+4**.

After doing one of the steps described, the auxiliary players will appear anchored at the right side of the ZaraStudio window. These players looks like this:



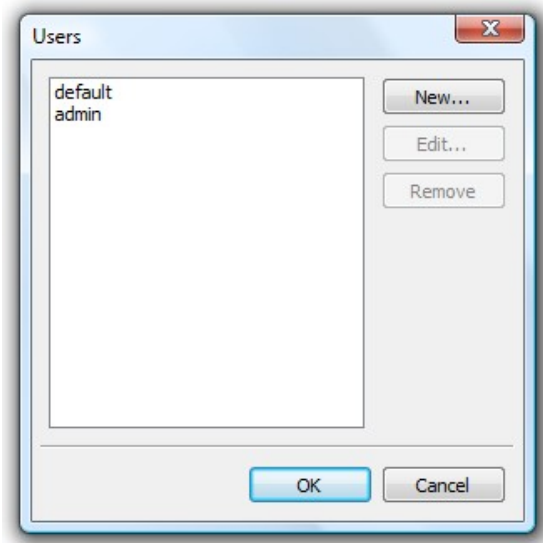
Its use is similar to the one of the main playlist (see playlist and main window). The only noticeable difference is that events are not chained between the auxiliary player items. So, when letting ZaraStudio playing an automatic programming, we must use the main player, while the auxiliary players are indicated for manual use.

15. Users and permissions

15.1. User management

ZaraStudio has a user management module, what not only allows to limit access to certain application modules, but also to provide an independent window configuration to each user.

In order to access to this module, you have to execute **Tools > User management**. After doing this, the following dialog opens:

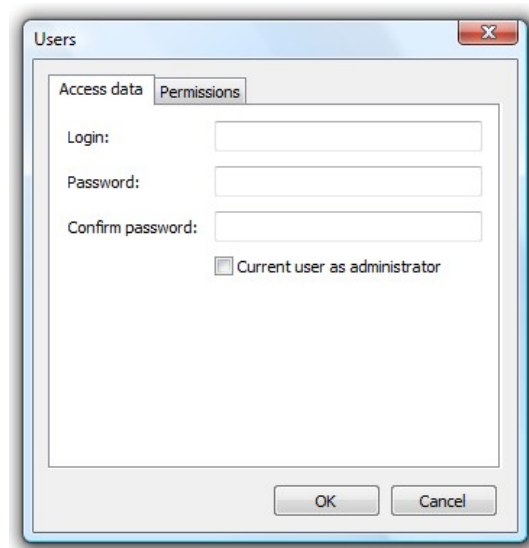


By default, the application has two predefined users that cannot be removed, to prevent the program from running out users:

- **Default.** This is the default user used by the application when it is opened. It is a user with very limited permissions, so it does not have a password.
- **Admin.** This user has administrator permissions, i.e., it can access to all the application modules. It is not an independent user, but it provides this access condition to the current user. The default password is "admin", but you can modify it at any time.

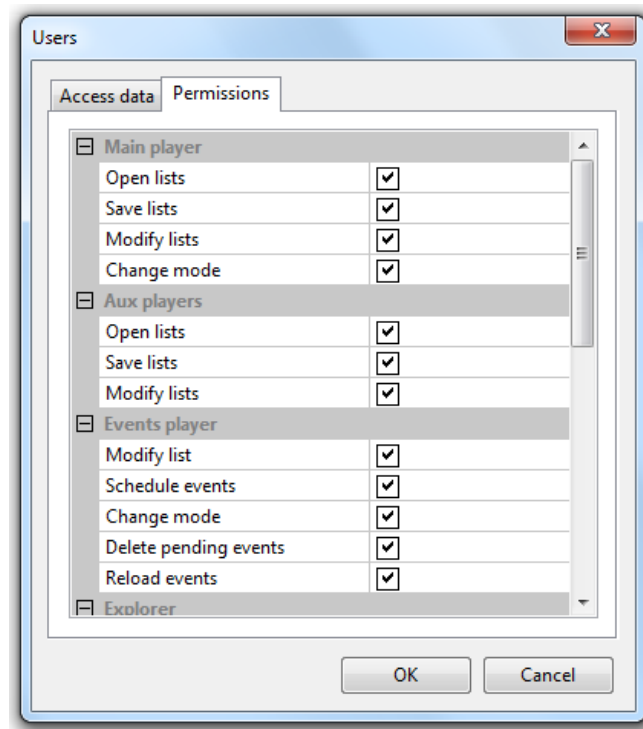
This dialog also has the following buttons:

- **New:** Opens a window that lets you create a new user and assign permissions.



You have to fill out the following fields:

- **User.** It is the name used to log-in in the application.
- **Password.** Password used by the user to log-in in the application. You have to type it twice, to avoid spelling mistakes.
- **Current user as administrator.** When this box is checked, a special user is created. This user gives full permissions to the currently logged user, regardless of its access condition. This is useful, for example, to modify the window configuration users that do not have this permission.



In addition, the **Permissions** tab allows to assign to the user the desired privileges:

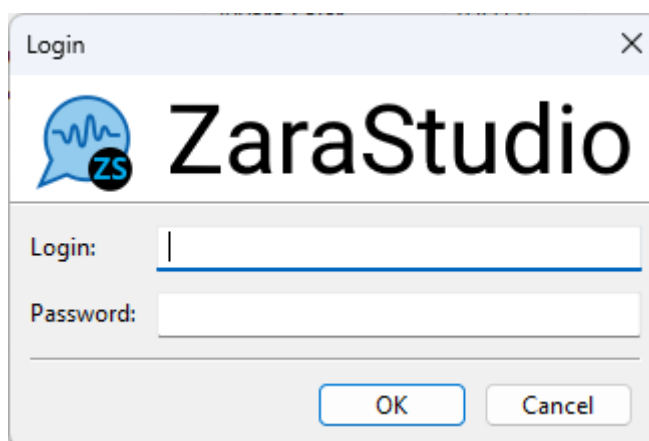
- **Open lists.** Allows the user to open an existing playlist.
- **Save list.** Allows the user to save changes made to the opened playlists.
- **Modify list.** Allows to change opened playlists (pasting audio files, dragging files from other windows, moving audio files,...).
- **Change mode.** Gives access to the playlist mode dropdown. This also allows the user to enable or disable the events in that player.
- **Schedule events.** Lets the user access to the event scheduler.
- **Delete pending events.** Gives the possibility to remove the pending events.
- **Reload events.** Reloads all the events of the day, discarding all the manual

changes made on the schedule.

- **Manage disk audio sources.** Allows the user to create, modify and remove disk audio sources.
 - **Manage database audio sources.** Allows the user to create, modify and remove database audio sources.
 - **Create folders.** Allows the user to create new folders on database audio sources.
 - **Modify folders.** Allows the user to modify existing folders on database audio sources.
 - **Delete folders.** Allows the user to remove existing folders on database audio sources.
 - **Create audios.** Allows the user to import new audios to a database audio source.
 - **Modify audios.** Allows the user to modify the properties of an existing audio.
 - **Delete audios.** Allows the user to delete audios from the database.
 - **Auditor.** Gives access to auditor tool.
 - **Voice track editor.** Allows to access to the voice track editor.
 - **Options.** Gives access to the options dialog.
 - **Manage users.** Gives access to the user management window.
 - **Minimize ZaraStudio.** Lets the user minimize ZaraStudio's main window.
 - **Close ZaraStudio.** Offers the user the ability to close the application.
 - **Modify window configuration.** Allows the user to customize the window layout. If this permission is not set, the windows will be blocked and the user will not be able to move or close them. New windows will not open either. To modify the window configuration, an administrator account will be needed.
- **Edit:** Allows to modify the password and permissions of the selected user.
 - **Remove:** Removes the selected user.

15.2. User change

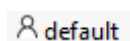
To log in as another user, select **Tools > Change user**. After that, the following authentication dialog will open:



You will have to enter your user name and password in this window. If the information is correct, the window configuration of the user will be loaded and the application modules to which it has access will be enabled. When the program closes or another user logs in, the window layout will be saved.

By default, two users are included: default (without password) and admin (with password "admin").

Every time, the application top bar will display the currently logged user name:



16. Music programmings

Now let's look at an example of how to use ZaraStudio to automate a real situation for a music station.

First, it's important to plan a folder structure on your computer for all the station's audio content. You should also decide whether to use the database, disk files, or a mixed alternative.

For this example, let's create the folder structure on the computer:

We wish to broadcast the following schedule:

- From 8 AM to 10 AM, nostalgic music, alternating two Spanish artists with one foreign artist.
- From 10 AM onwards, current music, alternating one Spanish artist with another foreign artist.

- Between songs, a station ID will be broadcast.
- At half past the hour, a commercial break will be broadcast without interrupting the song that's playing.

16.1. *Creating the music playlists*

Let's start with the 8 AM playlist. To create the music schedule, we will use random tracks. These are elements that are inserted into playlists by referencing a folder on the computer, and when played, they select and play a random audio file from the referenced folder. Additionally, through Options > General > Random Tracks, you can adjust the separation between repeating artists and the same song.

First, we create an empty playlist by pressing the button on any player and selecting New from the dropdown menu. Then, we insert three random tracks by accessing the Insert Random Track command in the dropdown menu next to the button.

For the 8 AM playlist, we want to alternate two nostalgic Spanish artists with one foreign artist. Therefore, the three random tracks we insert will reference the folders where we store those music styles:

- C:\Radio\Music\Spanish Nostalgia
- C:\Radio\Music\Spanish Nostalgia
- C:\Radio\Music\Foreign Nostalgia

We will also insert a random track from the "Station IDs" folder to play a station ID between songs.

After inserting the random tracks, the player will look like this:

This way, if we select the Repeat mode on the player, we will achieve the desired alternation. We save the playlist in TPL format with a descriptive name like 8h.tpl. To do this, press the player button, select Save, and assign the name 8h.tpl. The TPL format is ideal for random music scheduling through folders, as it automatically creates an infinite playlist of random music following the folder pattern when generating the playlist.

To create the 10 AM playlist, we will follow the same process, except we will insert the following random tracks:

- C:\Music\Current Spanish
- C:\Music\Current Foreign

We will save the playlist with the name 10h.lst.

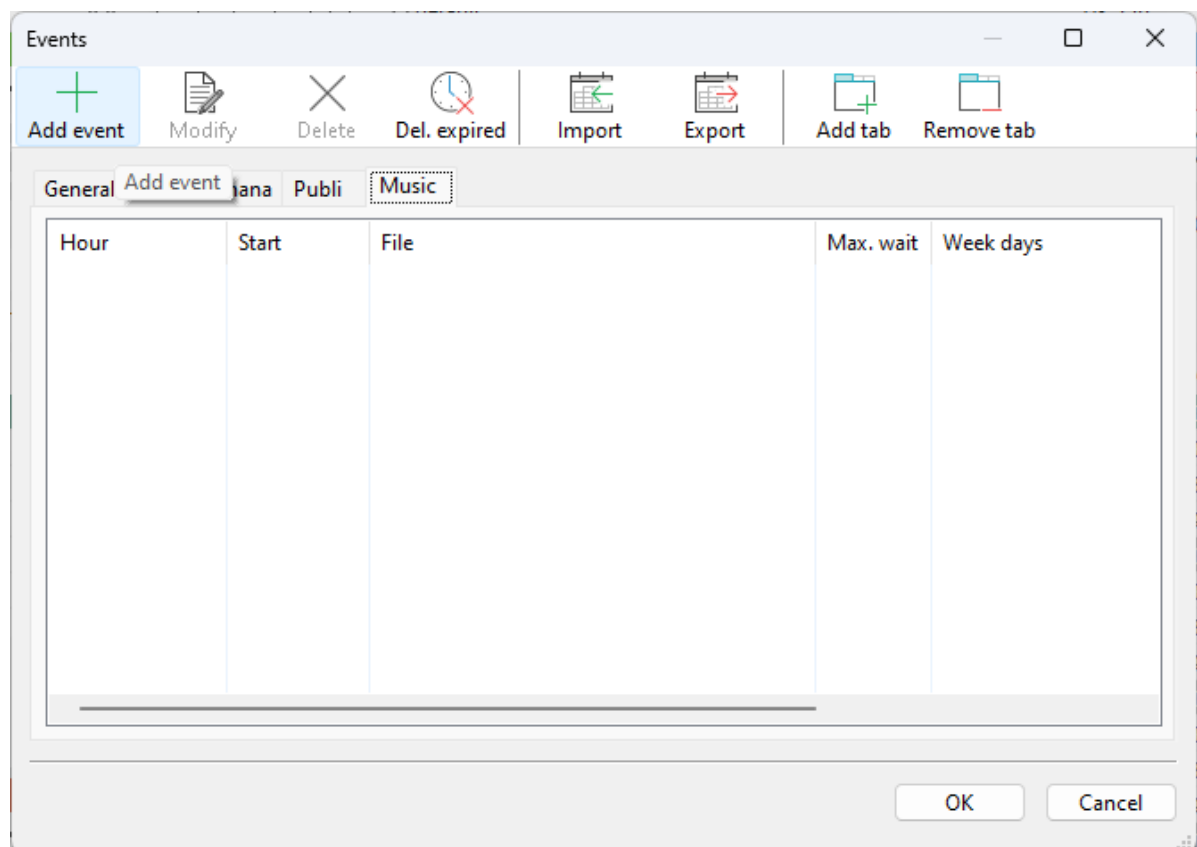
16.2. Creating the commercial break

For the commercial break, we have two options: using the event scheduler or the schedule editor.

16.2.1. Option 1: Event Scheduler

This is the classic method for generating content that needs to be played at a specific time (and/or date).

To access the event scheduler, we press the  button on the event player. When doing so, the event editor window will open:



Then, press the **Add Event** button. A new window will open to define the new event, which we should configure as follows:

Events

Description: Commercials

Tab: Music

Duration: 00:03:00

Date and time

First launch: 03/01/2025 0:30:00

☐ Expiration: 03/01/2025 0:00:00

Days

☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat ☒ Sun ☒ All

Start and repetition

Periodicity: Every hour

Start type: Delayed

☐ Maximum wait: 5 minutes

Event type

Block

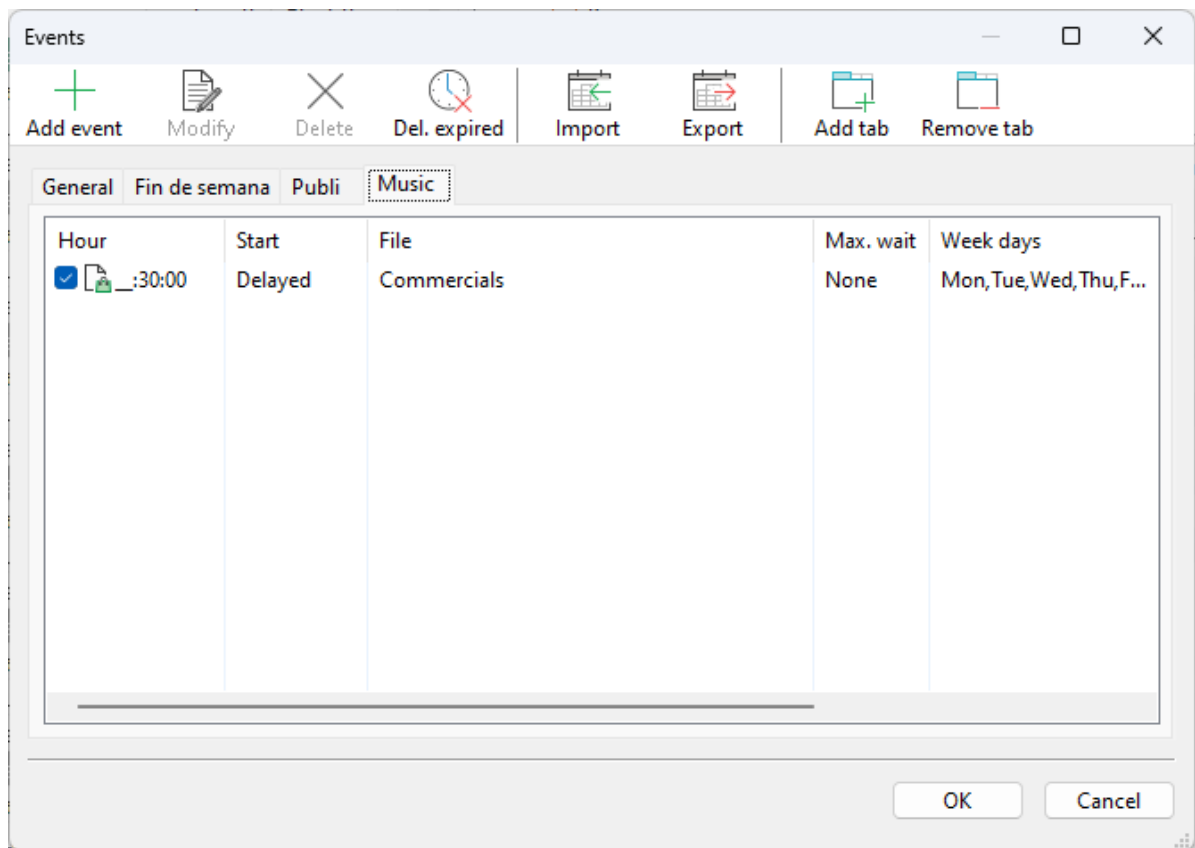
List length: 01:02.8 (01:57.1)

Description	Length	Start time
Sanidad Gripe A	00:23.4	
Servihabitat La Laguna 0317~1	00:16.6	
Tranvía de Zaragoza	00:23.8	

OK Cancel Cue

- **Description:** a name to identify the event.
- **Duration:** the estimated duration of the commercial block (for informational purposes).
- **First execution:** set any time to half past the hour. The exact time doesn't matter, as we will configure the event to play every hour.
- **Periodicity:** select Every hour to make the event play at half past every hour.
- **Start type:** select Delayed so it waits for the current song to finish before starting.
- **Event type:** select Block, which allows us to play several files with a single event. When selecting this, a playlist will appear where we must fill it with the commercial breaks.

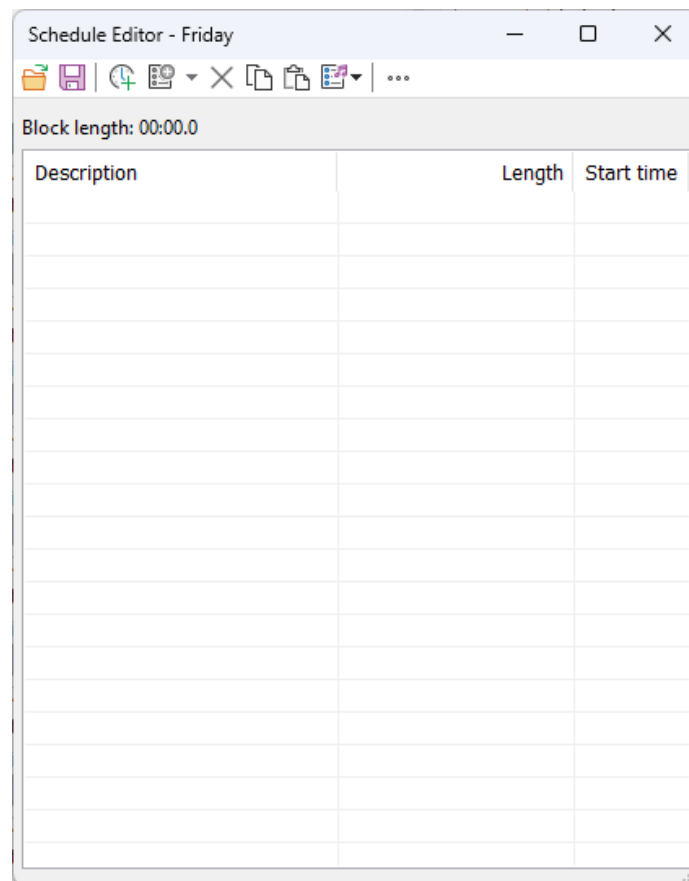
After doing this, the new event will appear in the event editor window:



16.2.2. Option 2: Schedule Editor

Since version 3, ZaraStudio has an independent schedule editor, which allows for better organization of the entire schedule for the day compared to the event scheduler, which can get complicated when managing a large number of events.

To access the schedule editor, press the  button in the top bar and choose the **Schedule Editor** option. This will open the schedule editor, which is similar to the playlists in the players:



Then, click the  button to create a new block. A new window will open, which should be configured as follows:

Block

Time: 9:30:00

Description: Commercials

Duration: 0:03:00

Block type: Delayed

Repetition: Every hour

☐ Maximum wait

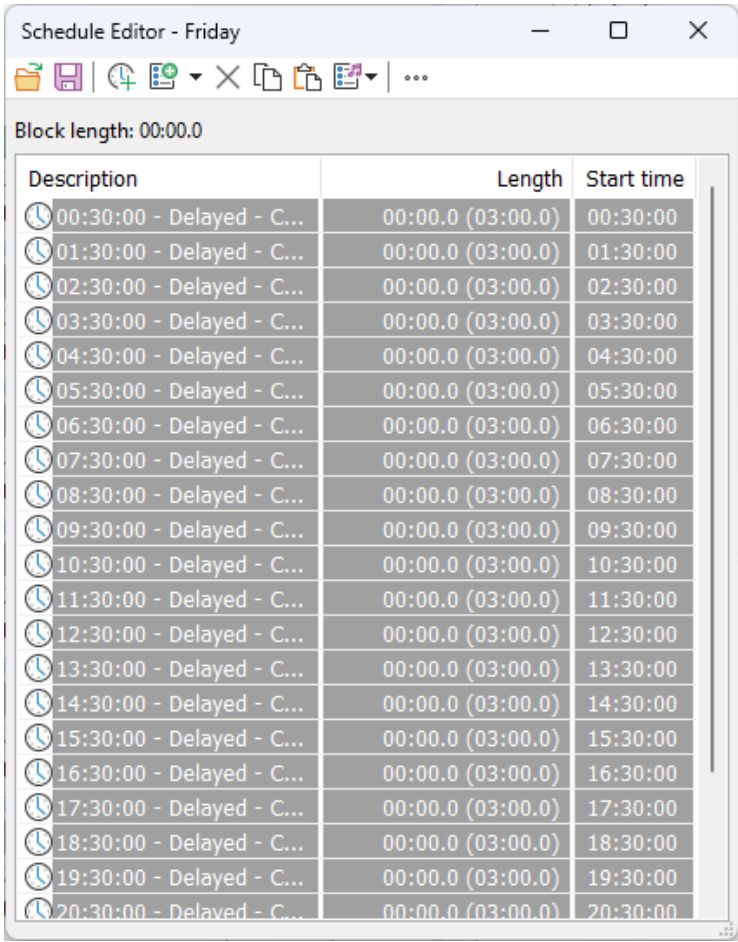
Maximum wait (min.): 0

OK Cancel

- **Time:** set any time to half past the hour.
- **Description:** a name for the block.

- **Duration:** the estimated duration of the block (informational purposes). This option is especially useful for stations associated with networks that need to match the exact duration of disconnections.
- **Block type:** select Delayed so the event doesn't interrupt the song that's playing and waits for it to finish.
- **Repetition:** select Every hour so the event repeats every hour.

After doing this, you will see a block for every hour in the schedule:



The screenshot shows a window titled "Schedule Editor - Friday" with a toolbar and a table of schedule blocks. The table has three columns: Description, Length, and Start time. It contains 24 rows, each representing an hourly block from 00:30:00 to 20:30:00. Each block is marked as "Delayed" and has a length of 00:00.0 (03:00.0).

Description	Length	Start time
00:30:00 - Delayed - C...	00:00.0 (03:00.0)	00:30:00
01:30:00 - Delayed - C...	00:00.0 (03:00.0)	01:30:00
02:30:00 - Delayed - C...	00:00.0 (03:00.0)	02:30:00
03:30:00 - Delayed - C...	00:00.0 (03:00.0)	03:30:00
04:30:00 - Delayed - C...	00:00.0 (03:00.0)	04:30:00
05:30:00 - Delayed - C...	00:00.0 (03:00.0)	05:30:00
06:30:00 - Delayed - C...	00:00.0 (03:00.0)	06:30:00
07:30:00 - Delayed - C...	00:00.0 (03:00.0)	07:30:00
08:30:00 - Delayed - C...	00:00.0 (03:00.0)	08:30:00
09:30:00 - Delayed - C...	00:00.0 (03:00.0)	09:30:00
10:30:00 - Delayed - C...	00:00.0 (03:00.0)	10:30:00
11:30:00 - Delayed - C...	00:00.0 (03:00.0)	11:30:00
12:30:00 - Delayed - C...	00:00.0 (03:00.0)	12:30:00
13:30:00 - Delayed - C...	00:00.0 (03:00.0)	13:30:00
14:30:00 - Delayed - C...	00:00.0 (03:00.0)	14:30:00
15:30:00 - Delayed - C...	00:00.0 (03:00.0)	15:30:00
16:30:00 - Delayed - C...	00:00.0 (03:00.0)	16:30:00
17:30:00 - Delayed - C...	00:00.0 (03:00.0)	17:30:00
18:30:00 - Delayed - C...	00:00.0 (03:00.0)	18:30:00
19:30:00 - Delayed - C...	00:00.0 (03:00.0)	19:30:00
20:30:00 - Delayed - C...	00:00.0 (03:00.0)	20:30:00

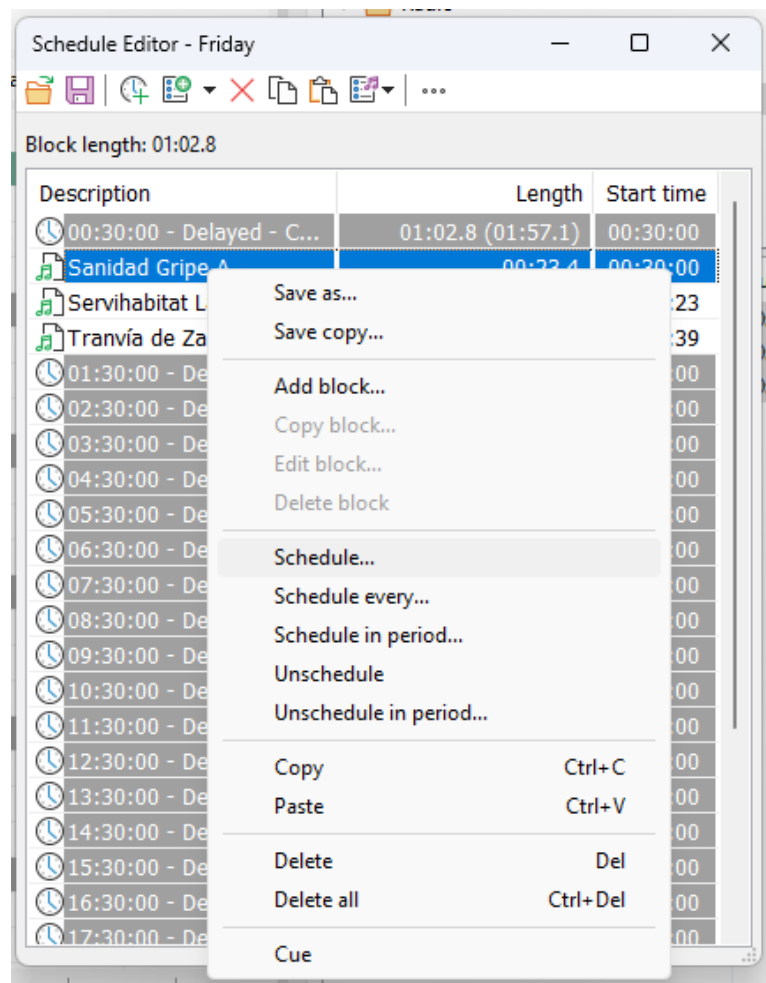
Next, fill the first block with the desired commercial content by dragging from the **Explorer** or by pressing the  button:

Schedule Editor - Friday

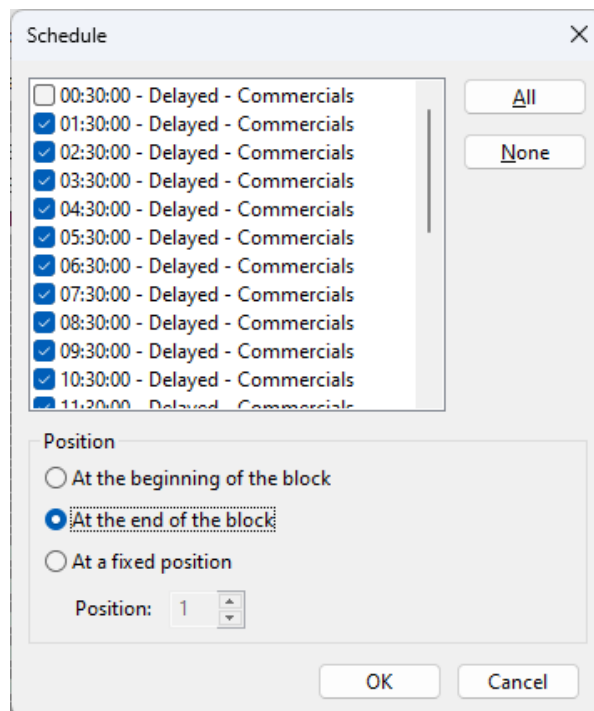
Block length: 00:00.0

Description	Length	Start time
00:30:00 - Delayed - C...	01:02.8 (01:57.1)	00:30:00
Sanidad Gripe A	00:23.4	00:30:00
Servihabitat La Laguna ...	00:16.6	00:30:23
Tranvía de Zaragoza	00:23.8	00:30:39
01:30:00 - Delayed - C...	00:00.0 (03:00.0)	01:30:00
02:30:00 - Delayed - C...	00:00.0 (03:00.0)	02:30:00
03:30:00 - Delayed - C...	00:00.0 (03:00.0)	03:30:00
04:30:00 - Delayed - C...	00:00.0 (03:00.0)	04:30:00
05:30:00 - Delayed - C...	00:00.0 (03:00.0)	05:30:00
06:30:00 - Delayed - C...	00:00.0 (03:00.0)	06:30:00
07:30:00 - Delayed - C...	00:00.0 (03:00.0)	07:30:00
08:30:00 - Delayed - C...	00:00.0 (03:00.0)	08:30:00
09:30:00 - Delayed - C...	00:00.0 (03:00.0)	09:30:00
10:30:00 - Delayed - C...	00:00.0 (03:00.0)	10:30:00
11:30:00 - Delayed - C...	00:00.0 (03:00.0)	11:30:00
12:30:00 - Delayed - C...	00:00.0 (03:00.0)	12:30:00
13:30:00 - Delayed - C...	00:00.0 (03:00.0)	13:30:00
14:30:00 - Delayed - C...	00:00.0 (03:00.0)	14:30:00
15:30:00 - Delayed - C...	00:00.0 (03:00.0)	15:30:00
16:30:00 - Delayed - C...	00:00.0 (03:00.0)	16:30:00
17:30:00 - Delayed - C...	00:00.0 (03:00.0)	17:30:00

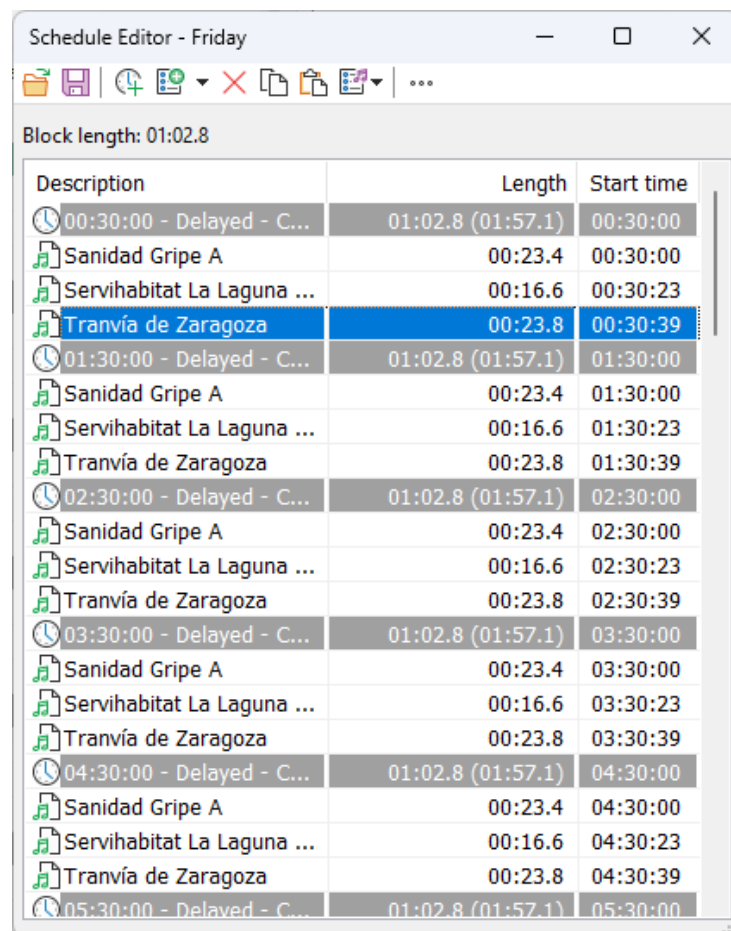
Now, repeat this content (or vary it if desired) in each block. To do this, right-click on the audio you wish to schedule and select **Schedule...**:



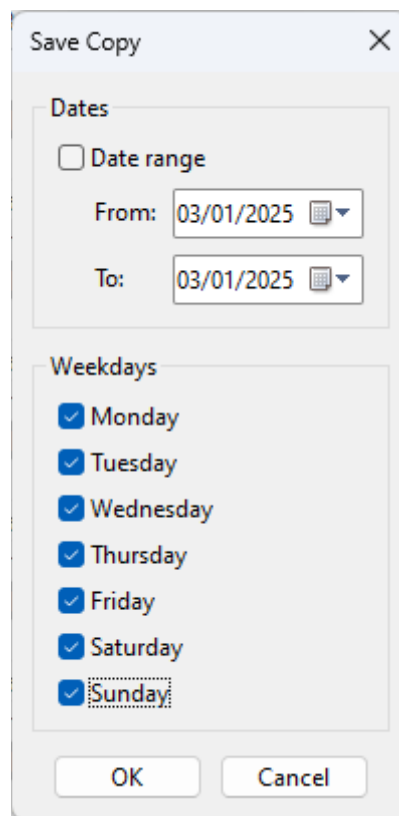
A new window will open to choose which blocks you want to schedule this audio. In it, select all except the first one, as the audio is already scheduled in it:



Repeat this process for each audio until the schedule is complete:



Next, save the schedule by pressing the  button. By default, it will save for the day shown in the window title, which in this case is Monday. If you want to use the same schedule for the rest of the week, press the ******* button and choose **Save Copy**. A new window will open where you should select all days of the week:

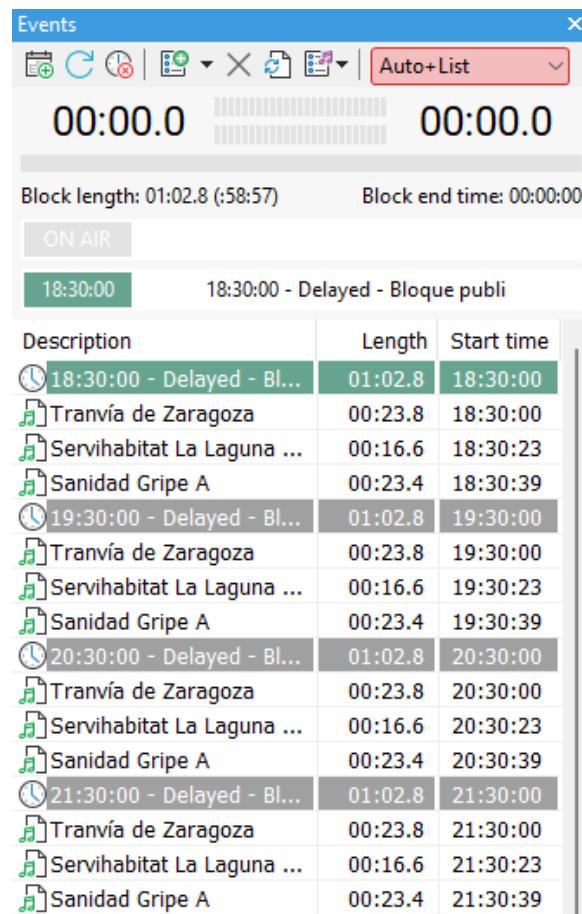


The image shows a 'Save Copy' dialog box with a close button (X) in the top right corner. It contains two main sections: 'Dates' and 'Weekdays'. In the 'Dates' section, there is an unchecked checkbox for 'Date range'. Below it are 'From' and 'To' date pickers, both showing '03/01/2025'. In the 'Weekdays' section, there is a list of days from Monday to Sunday, each with a checked checkbox. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

This will save the schedule for all days of the week. If you only want it for a specific range of dates, you will need to check the **Date Range** box and select the desired range. In this case, you would also need to select the desired days of the week, as the schedule would only be saved on those days for the selected date range.

Once this is done, the commercial schedule is ready. As you can see, this process is more labor-intensive with the schedule editor, but it provides a clearer view of the scheduled content.

After completing these steps, you will see that the event player now shows the commercial blocks created:



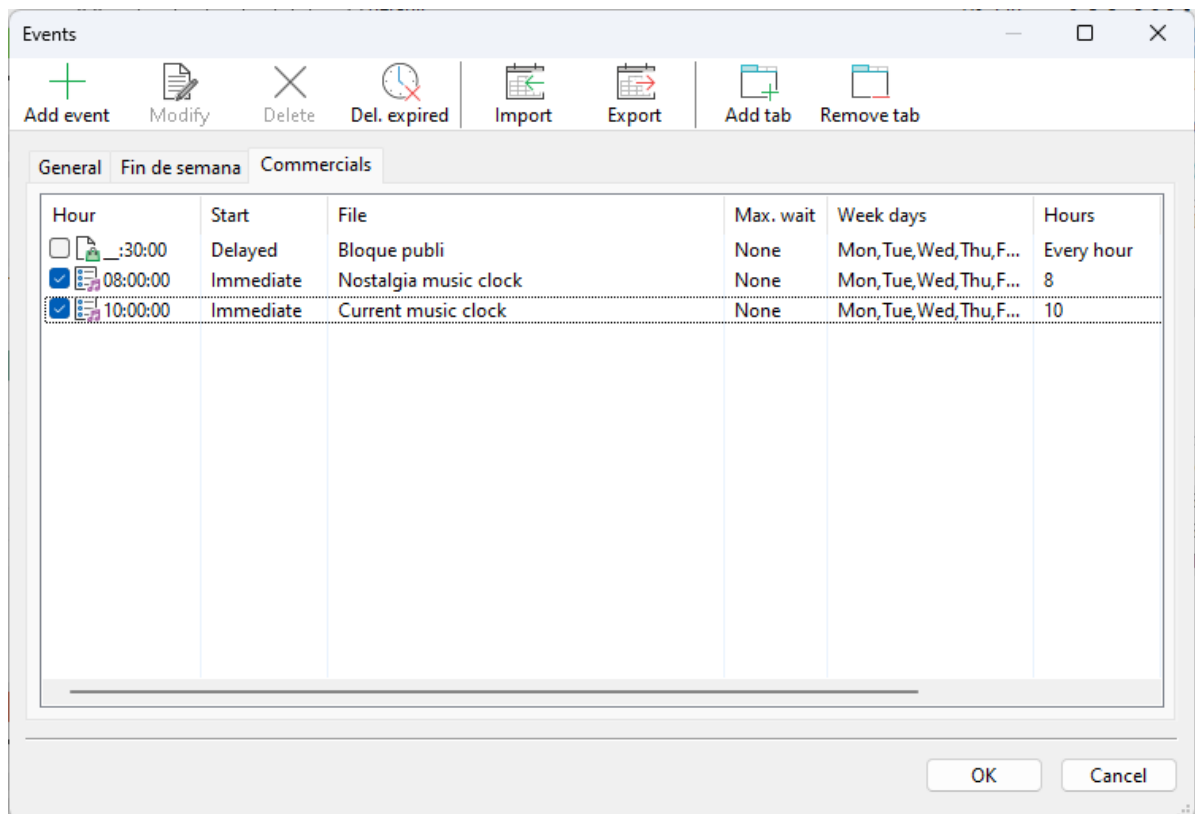
16.3. *Creating the music events*

To ensure the station broadcasts the musical styles at the desired times, we will need to create two more events that load the playlists created earlier. Again, we have two options: using the event editor or the schedule editor. These two options are compatible, meaning we can schedule the commercials with the schedule editor and the music events with the event editor.

In this case, for our example, let's assume we want to use the event editor. We access it and create an event as follows:

- **First execution:** choose 8 AM, the time we want the music clock to load.
- **Periodicity:** this time, it will be **Once a day**.
- **Start type:** it will be **immediate**, as we want the music clock to start at the top of the hour, interrupting whatever is playing.
- **Event type:** since we only want to load a single file, choose **File** and load the playlist created earlier (8.tpl) using the lower selector.

We will repeat this operation with the 10h.tpl playlist but load it at 10:00 AM. After doing this, the event editor will look like this:



Press OK and observe that the event player has loaded the events corresponding to the music playlists:



Now, simply select the automatic mode and press **Play** on the main player. For automatic mode, select **Auto+List**, so after each event, ZaraStudio will switch to playing the content from the main player.

That's it; our schedule is ready!