

# Version 2.2

**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 be used too in any other scenario with similar requirements.

It is designed with small and medium-sized radio stations in mind, though it can be used in bigger radio stations too without any problems. Broadcasting programs at certain times or random musical selections are extremely easy tasks with ZaraStudio. With it, you will be able to leave your station automated during long periods, like summer. Besides, if your station is affiliated to a radio network, you will be able to automate local disconnections for ads, as long as the 'mother station' uses a telecommand system, either through contacts on the computer parallel port or through DTMF tones.

In contrast to other programs, ZaraStudio does not rely on a database or a server to work. It doesn't need special sound cards either, since it works with any Windows-compatible card, though it is recommended to use professional cards to get an optimal audio quality.

Furthermore, ZaraStudio requires few resources and it can work with a minimum hardware. As for the operating system, it is designed to be used in Windows XP, Vista or 7 (the contact closure detection through the parallel port feature is only available on 32-bit systems).

# 2. The first execution

When executing ZaraStudio the first time, you might get an error message, depending on your operating system. The most common cases are:

- An error that says a DLL file is not found. ZaraStudio relies on Windows Media Player to play WMA and MP3 files. If you get this error, then you should update that program to the latest version available for your system, or install a package with the files needed (http://www.zarastudio.es/files/wmfdist.exe).
- An error about a file called IO.SYS. You will get this error only in Windows Vista. If this is your case, close ZaraStudio and run it with an administrator account. After that execution, the error message shouldn't appear anymore, even if you use limited accounts.

### 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:

🙆 Untitled2 - ZaraStudio				
File Edit View Palet	te Tools Programs Help		🙆 🕸 🛔	, 🛔 🕎 🏹 阿 🗠 🛤 🖓 🕢 🍪 ZaraStudio
Aux 1 - Untitled1		Main Player - Untitled2		× Events & Indicators ×
	Normal 🔻		Q [] [] [] . Repeat	miércoles, 06 de octubre de 2010
Remaining: L 00:00.0 R	End time: 00:00:00	Remaining: L 00:00.0 R	End time: 00:00:0	•• 🕑 18:09:26
List length: 00:00.0	List remaining: 00:00.0	List length: 00:00.0	List remaining: 00:0	00.0 On the air - Now playing
Description	Length	Description	Length	th
				· · · · · · · · · · · · · · · · · · ·
				Next
				·
				Upcoming events 🕨 🗙 📝 🚱
				Time Start File Length
				⊕ Acceso público
				Red
				Panel de control
				Papelera de reciclaje     EvaluationProducts
				Iconsl andVistaBaseSoftwareIconsDemo
Empty 2 Empt 00:00	y 3 Empty 4	Empty 6 Empty 00:00 00:00	6 Empty 0 E	Empty () Empty () Empty () Condo
00,00		00,00	00,00	default a

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:

• Menu bar

File Edit View Palette Tools Programs Help

It allows you to access to several features of the program. An important point to note is that it only affects to the main player. To get more information, see the section The menu bar.

• Top tool bar

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It allows to search audios in a given folder and all its subfolders. The search reads the ID3 tags TITLE and ARTIST and, of course, the name of the file. To get more

information, go to the section search in folders.

- Opens the mixer application specified in the options dialog.
- 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.
- Mutes or enables the sound card line in port specified set as 'Channel 2' 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.
- Shows or hides the auxiliary players. They work even if they are hidden, that is, the audios in the playlist are still played in that case.
- It opens the About dialog, which contains the program licence, information about the author of the program and several credits.
- Players

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

• Events and indicators

This part of the window shows several indicators with the date and the time and, optionally, the current weather conditions. In order to view this last information, it is necessary to have an Internet connection and an auxiliary application, which is specified later.

On the other hand, we also find access to the events module in this panel, which is the tools that allows to automate your station, based on concrete dates and times.

Finally, it has a file tree of or whole machine, that lets you access quickly any audio, either to prelisten it or to broadcast it through a player.

• Jingles palette

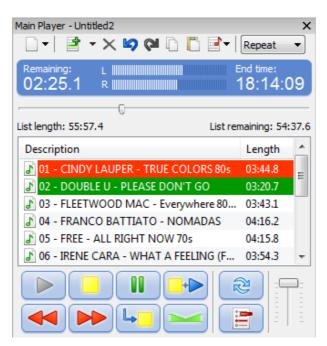
It lets you play up to 90 jingles. See The jingles palette for more details.



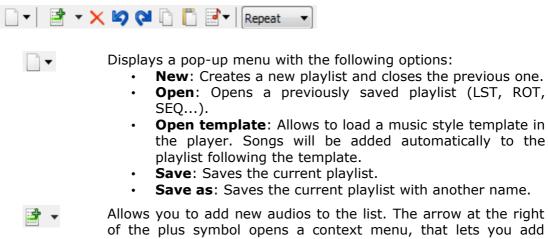
# 4. The players

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 toolbar.
- The audio state indicators.
- The playlist.
- The control buttons.



## The tool bar



of the plus symbol opens a context menu, that lets you add commands to the playlist.

- X Deletes the selected elements.
- Undo the last operation done in the playlist.
- Redo the last operation.
  - Copy the selected items into the clipboard.
    - Paste the clipboard contents in the playlist.

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.

Manual

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**⊡**• +

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

### **State indicators**

Remaining: 04:43.6	L	End time: 18:36:59
List length: 40:55	.4 List	remaining: 35:36.6

- **Remaining time**. Shows the time left until the audio which is being played finishes.
- Vumeter. Shows the audio level.
- **End time**. Displays the end time of the audio that is being played. Please, note that this is not an accurate data, as the overlap between files is not considered.
- **Position track 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.
- **List remaining**. Displays the total duration of all the files that has not been played yet, i.e., what is left in the currently being played cut plus the length of the following ones.

# The playlist

Song title	Length
🕼 No Doubt - Don't Speak	04:23.5
🕼 15 - Maria Mena - Just Hold Me	04:25.7
🕼 Gwen Stefani (Ft Akon) - The Sweet Esca	04:06.5
🕼 James Morrison- You Give Me Somethin 👘	03:37.2
🕼 Meredith Brooks - Bitch	04:08.0
🕼 Robbie Williams - Angels	04:24.8
🕼 The Pussycats Dolls - Don't cha	04:32.0
🔃 The Rembrandts -I'll Be There For You	03:08.5

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**. Losless 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 bitrate (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. Losless 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.
- **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 and audio that will say "one".
  - 2. HRSXX.mp3. This is an audio clip of hour XX. For example, HRS18.mp3 will contain and 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 and 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 if 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.

- **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.
- 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.
- Enable voice tracking (.enablesweepers files). Enables voice tracking.
- **Disable voice tracking (.disablesweepers files)**. Disables voice tracking.
- Advertising block (.commercial files). Plays an advertising block generated by ZaraTraffic application. This kind of item can only be used in the event scheduler.

#### 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 in 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.

#### **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  $\bowtie$  will stop the playlist after the current track (colored red) is finished.

#### 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.

#### Playlist operation modes

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

Manual 🔻

- **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.

#### 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.
- **Shuffle**: Rearranges the list randomly.
- **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.

### **Control buttons**

You will find under the playlist the buttons that allows to control it. They are the following ones:





 $\ensuremath{\mathsf{PLAY}}$  button. Sets ZaraStudio in  $\ensuremath{\mathsf{PLAY}}$  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.

### 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.

## 5. 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.

Upcoming eve	ents	>	<   🗹 🏵
Hour	Start	File	Length
<b>15:57:00</b>	Delayed	Jingle	;,
<b>16:00:00</b>	Delayed	ID - Top of the hour	;,

This figure shows the list of upcoming events in the main window of ZaraStudio. The events display 15 minutes prior to activating.

Above the list of events there are four buttons, whose functions are:

- 1. **Play**: Starts delayed events, that is to say, events that have not yet been started as they are programmed to wait for a currently playing file to end.
- 2. **Discard events**: Removes an event held by a delay as described above.
- 3. Enable events: Activates or deactivates the loaded list of events.
- 4. Schedule events (clock): Opens a window that allows defining, saving or loading events.

In order to add events, click on the clock icon. Doing this will open this window:

d event Modify	, Delete	Del. expired Import Export	Add tab Remove tab
General Ads			
Hour	Start	File	Priority Max. wai
🔽 🍓 18:15:00	Delayed	Redifusión Informativo	Low None
🔽 🔂 _:00:00	Delayed	indicativos	Low None
🔽 🚞:05:00	Delayed	indicativos	Low None
🔽 🔂:10:00	Delayed	indicativos	Low None
🔽 🚞:15:00	Delayed	indicativos	Low None
🔽 🚞:20:00	Delayed	indicativos	Low None
🔽 🔂 _:25:00	Delayed	indicativos	Low None
🔽 🚞:30:00	Delayed	indicativos	Low None
🔽 🚞:35:00	Delayed	indicativos	Low None
🔽 🔂 _:40:00	Delayed	indicativos	Low None
🔽 🚞:45:00	Delayed	indicativos	Low None
🔽 🚞:50:00	Delayed	indicativos	Low None
🔽 🚞:55:00	Delayed	indicativos	Low None
🔽 🔓 13:51:31	Immediate	Connect to satellite	Low None
•	11	1	4

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.

## New

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

Periodicity	Date and time		
Once a day	Start date and	time	
Play every hour	<mark>19</mark> :17:17	-	16/09/2010
Other hours	Expiration		
	19:17:17	A V	16/09/2010
Delayed 🔻			
Maximum wait			
5 iminutes			
File:			<ul> <li>✓ Tuesday</li> <li>✓ Wednesday</li> <li>✓ Thursday</li> <li>✓ Friday</li> <li>✓ Saturday</li> <li>✓ Saturday</li> <li>✓ Sunday</li> <li>All</li> <li>None</li> </ul>

The user defined parameters of an event are:

#### • Start 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.

#### • 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 **Other hours...** opens the following window:

Event ho	urs			×
Ö	1	2	3	None
8	9	6 10	11	All
12	<ul><li>✓ 13</li><li>□ 17</li></ul>		15	
20	21	22	23	
	0	К		Cancel

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... the satellite command clears mute of the selected sound card input for the amount of time shown in the field that is to the right.

#### • Wait mode

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.

#### • 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.

## 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.

## 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.

## 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.

## 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.

### 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",...

### 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.

## **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.

# 6. Options

Clicking on the icon  $\square$  on the top tool bar, will open the options dialog. From this dialog, you will be able to manage:

- Audio
  - Fade
  - Outputs
  - Satellite
  - AGC
  - Silence detector
  - Mixer
- Telecommand
  - DTMF
  - Parallel port
  - Serial port
- Log
- Explorer
- Random tracks
- Tags
- Talk over

- HTH
- Paths
- General

## General

It allows you to set several ZaraStudio options:

tions	
Fade Satellite	General
Satellite Outputs Log Password Silence detector Mixer	General options Station name Language Language: English
····TTH ····DTMF ····Parallel Port ····Explorer	'CurrentSong' and 'NextSong' file output Output folder: C:\ Browse
AGC Random tracks Tags Talk over General	Other options Enable autostart Allow opening more than one instance Disable the events in secondary instances Launch program on system startup Open the last list at startup Shutdown confirmation Play audios by double-clicking on them
	OK Cancel

- **Station Name**. It is the text that appears in the top tool bar of the main window.
- **Language**. Language of the user interface. This option only takes effect when ZaraStudio is started.
- 'CurrentSong' and 'NextSong' file output. ZaraStudio generates two text files, one with the title of the song which is being played, and another one with the following song. You can use them to send them to a RDS coder, to your web page,... Here you can specify the folder where these files will be created.
- **Enable Autostart**. Causes ZaraStudio to automatically play the playlist when the program is opened.

- **Enable AGC**. Enables the Automatic Gain Control, that keeps output volume at a constant level.
- **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.
- **Disable the events in secondary instances**. When this option is checked, secondary instances will open with the events disabled.
- Allow opening more than one instance. You can prevent users from opening several instances of ZaraStudio by unchecking this option.
- Launch the program on system start up. Runs ZaraStudio after system start up automatically.

### Fade

Options	X
Audio     Fade     Outputs     Satellite     AGC     Silence detector     Mixer     Telecommand     Serial port     Serial port     Cog     Explorer     Random tracks     Tags     Talk over     TTH     Paths     General	Fade         Main player       Aux 1       Aux 2       Aux 3       Aux 4         Overlap       Overlap tracks       8       >       seconds         Fade       Fade       Fade       >       >         Fade tracks       4       >       seconds         Image: Track track tracks       1       >       >       >         Fade on overlap       >       >       >       >       >         Image: Track t
	When enabling the detector, ZaraStudio will jump automatically -26,02 db         to the next song if it detects a low volume during the overlap         time         OK

Affects overlapping and fading of tracks. It is possible to have two separate settings

for each auxiliary player and for the main one. There are two modes of operation:

#### • End of song detector.

In the last seconds of a track (value determined by the field to overlap tracks) ZaraStudio will automatically detect volumes below the threshold indicated by the sliding bar. At that point, the overlap will eliminate the end of a track that has a long fade out.

#### • Without detector.

ZaraStudio will fade to the next song based solely on the selected time values. This will permit the end of a track to play out regardless of the playback level.

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.

Options Fade on overlap and Fade on stop:

#### • 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.

## Talk over

Fade	Talk over		
Satellite Outputs Log Password		e volume for the speechs and the transition peri	od
Silence detector	Transition period		
Mixer TTH DTMF Parallel Port	Period:	500 milliseconds	Default value
	Speech volume	-15,67 db	

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 tool bar.

## Log

Options	
<ul> <li>→ Audio</li> <li>→ Fade</li> <li>→ Outputs</li> <li>→ Satellite</li> <li>→ AGC</li> <li>→ Silence detector</li> <li>→ Mixer</li> <li>→ Telecommand</li> <li>→ DTMF</li> <li>→ Parallel port</li> <li>→ Serial port</li> <li>→ Log</li> <li>→ Explorer</li> <li>→ Random tracks</li> <li>→ Tags</li> <li>→ Talk over</li> <li>→ TTH</li> <li>→ Paths</li> <li>→ General</li> </ul>	Log Select the folder where the log files will be saved. The name of the files will be YY-MM-DD.log Log folder Cap folder Log only when using the first instance Log full path Folder: C:\Users\Juan Antonio Browse
	OK Cancel

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. Prelistens 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.

## Outputs

Options	
Fade	Outputs
Satellite 	Select the device which will be used as air output and cue output
Silence detector Mixer TTH	Air output           Air output           Altavoces (Realtek High Definition Audio)
DTMF Parallel Port Explorer AGC Random tracks	Cue output Altavoces (Realtek High Definition Audio)
Tags Talk over General	Aux players outputs
	Aux 1: Altavoces (Realtek High Definition Audio)
	Aux 2: Altavoces (Realtek High Definition Audio)
	Aux 3: Altavoces (Realtek High Definition Audio)
	Aux 4: Altavoces (Realtek High Definition Audio)
	OK Cancel

Select the sound card to use for the Air output, Cue output and the auxiliary players. If you have only one sound card output, both Air output and Cue output will be heard together. Please, note that the change takes place when the next file is played.

## Satellite

Options			X		
- Audio	Satellite				
Fade Outputs Satellite AGC Silence detector	Select the	sound cards that will be used as sate	ellite input		
Mixer Telecommand DTMF	Channel 1: Línea de entrada (Realtek High Definition Audio) 🔻				
Parallel port Serial port Cog	Channel 2: Micrófono (Realtek High Definition Audio)  Buffer size (ms): 100				
Random tracks	Control Window	s mixer			
···· Talk over		Channel 1	Channel 2		
Paths	Mixer device:	Realtek HD Audio output 🛛 🔻	Realtek HD Audio output 👻		
General	Mixer line:	Línea de entrada 🔹 👻	Micrófono 👻		
	Vumeter device:	Línea de entrada (Realtek Hig 💌	Micrófono (Realtek High Defini 💌		
			OK Cancel		

ZaraStudio lets you rebroadcast the sound present at the line-in port of up to two sound cards. Audio is routed to air output, when the connect and disconnect commands are used, or to the player output, when a timer-based connection is used.

In order to achieve this, the application picks the sound from the line-in port, stores it in a temporal buffer and plays it through the output sound card. The buffer size can be set through the **Buffer size (ms)** field. The larger this buffer is, the longer the audio delay is, but the chance of audio interruptions decreases. A value of 100 milliseconds is a good choice.

From version 2.2, this feature is available with any kind of sound card, even the ones that do not allow to enable their line-in port through Windows mixer. However, for this to work properly, you have to enable the desired channel in the recording section of Windows XP mixer. The configuration may vary depending on the sound card model, but, in general, it should be like this:

- In "Playback" section, all the channels, except "Volume control" and "Wave", should be muted.
- In "Recording" section, all the channels, except "Line volume" and "General volume" (if exists) should be muted.

You do not have to make these adjustments on Vista or 7, as the operating system creates an independent device for each sound card channel.

It is also possible to keep using the previous system based on controlling Windows mixer. To do this, select the option *Control Windows mixer*. Then, choose the devices and channels to use in the dropdowns below. This system has the advantage of not introducing any delay in the signal, but has the drawback that many cards, especially the professional ones, do not support it, as they include proprietary applications to enable and disable the inputs instead of the standard Windows mixer.

### Mixer

Options	
Fade Satellite Outputs Log Password Silence detector Mixer TTH DTMF Parallel Port Explorer AGC Random tracks Tags Talk over General	Mixer Select the program which will be used as mixer Mixer application Mixer: C:\Windows\system32\sndvol.exe Browse
	OK Cancel

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.

## Silence detector

Options	×
Fade Satellite	Silence detector
Satellite Outputs Log Password	ZaraStudio can detect silence periods during the songs and jump to the next track if something happens
	Silence detector
TTH	Tenable the silence detector
···· DTMF ···· Parallel Port	Silence period: 15 seconds
Explorer AGC	
Random tracks	
Tags Talk over	
General	
	OK Cancel

Detects periods of silence while playing tracks. When this happens, ZaraStudio jumps to the next track. It does not activate in the case of a system failure, only when silence in the playing track exceeds the time selected.

## Tags

ptions	×
Fade Satellite Outputs Log Password Silence detector Mixer TTH DTMF Parallel Port Explorer AGC Random tracks Tags Talk over General	Tags         Select whether you want to display tags or not in the playlist. If you want to show them, then configure the format.         Tags         Image: I
	OK Cancel

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.

# TTH

Dptions — Fade — Satellite — Outputs — Log	TTH Adjust the TTH configuration
Password Silence detector Mixer TTH DTMF Parallel Port	TTH Temperature: 0
Explorer AGC Random tracks Tags Talk over General	Import Import from file Disable announcements after 60 minutes since the last update
	File Location: Browse Units Temperature: Celsius
	OK Cancel

Here you set temperature and humidity for announcement. ZaraStudio can import data from the application *Weather Watcher* (requires version 5.6 or higher) or you can manually enter values in the fields Temperature and Humidity. The *Weather Watcher* software can be downloaded for free at http://www.singerscreations.com.

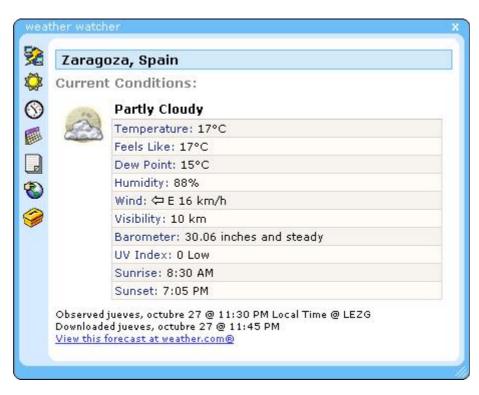
To use data from a weather application, check **Import from file** and type in the file path to the data file generated by the weather application.

Select the appropriate Units (Celsius or Fahrenheit). ZaraStudio will automatically convert the weather data to this unit regardless of what unit the data currently is.

A problem that can arise is the loss of the Internet connection, so we would be announcing incorrect weather data values. In order to avoid this possible situation, you can make ZaraStudio not announce the temperature and the humidity, if the application *Weather Watcher* has not updated the data in a given range of time. To do this, check the **Disable announcements**... option and specify the minutes the weather data will be valid since the last update.

#### **Configuring the application Weather Watcher**

1. When opening the application, you will see the following window:



- 2. Click on the bottom icon on the left side of the window.
- 3. The following window will be opened:

Veather Watc	her Options		
Proxy C Export General		Alert   Sounds   Maps Icon   Tray Tooltip   Auto Update   C	Wallpaper   Skins In Download
Active Cit	y Active City: Zaragoza, Spain [S	PXX0086]	
	Remove City	Remove All	
	Add Code	Add City	
	Changed (after ch	rieve forecast(s) when acti osing Options window)	
	ОК	Cancel Apply	Help

4. Go to the **Active City** tab, if you are not already on it, and press the **Add City** button.

5. The following window opens. Type in the desired city. In this example, we want to see data for Teruel, so we type "Teruel" and click on Search.

Weather Watcher	City Search	
Enter the name of	your city:	_
Teruel		Search
Teruel, Spain		
1 city found.	ок	Cancel

- 6. Teruel is in the list and we click on OK.
- 7. Back to the **Weather Watcher Options** window, click on the **Export tab**, then click on **Enable Exporter**. We must also indicate the file path that ZaraStudio will use to look up the file.

Weather Watcher Options
Proxy Conversion Severe Alert Sounds Maps Wallpaper General Active City Auto Update On Download Export Log Tray Icon Tray Tooltip Skins
Export Options Export Options Export File Location: c:\ZaraRadio\Tiempo.htm Browse View Export Delete Export Export Tomplete:
Export Template: <pre> <pre> <pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>
Use Default Template
OK Cancel Apply Help

- 8. Now, go to the **Auto Update** tab and select any value, excepting **Never Auto Update**. As a orientation, airports use to update the weather data every 30 minutes.
- 9. Now, press **OK** and update the weather data if the program has not updated it automatically (by pressing the first button at the left side of the window). The application is now configured. Now we must tell ZaraStudio the path of the file generated by *Weather Watcher*, as it has been explained before at the beginning of this document.
- 10.Then, check the **Import from file** option and press **Browse** to locate the file specified in **Export file location**.

## Explorer

Options	×
Fade Satellite Outputs 	Explorer Select the folder you want to be the root of the explorer. Also, you can select which files you want the explorer to show. Root folder of the tree Folder: Special folder Desktop Extensions Extensions WAV MP3 OGG WMA FLAC LST M3U PLS
	OK Cancel

Allows to configure the root folder of the file tree which is at the left of the playlist, as well as the file types that will be displayed.

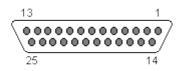
## **Parallel port**

····Fade ····Satellite	Parallel Port			
		ntrol ZaraStudio from an ng the parallel port	exterr	nal device, like a satellite decoder or a mixer, by
Mixer	Allow re	emote control through the	e para	llel port
TTH	Configur	ation		
···· DTMF ····Parallel Port	Port:	~	•	
Explorer	Actions			
AGC Random tracks	Actions	Rising edge:		Falling edge:
Tags Talk over	Pin 10:	Disconnection + List	-	None
General	Pin 11:	None	-	None 💌
	Pin 12:	None	-	None
	Pin 13:	None	-	None
	Pin 15:	None	-	None 👻

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.

In order to enable this feature, you must enable the Allow remote control through the parallel port option. Once you have done that, select the port from which you want to control ZaraStudio.

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:

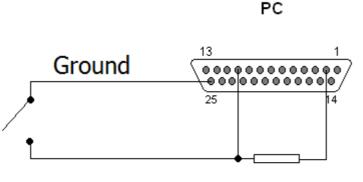


We are going to use only pins 2 to 9 and pins 10, 11, 12, 13 and 15. The former are output pins, that is, the computer writes on them, while the latter are input pins, that is, the computer reads them.

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:



2K2 ohm. resistor

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.

# AGC

Options		×
<ul> <li>→ Audio</li> <li>→ Fade</li> <li>→ Outputs</li> <li>→ Satellite</li> <li>→ AGC</li> </ul>	AGC Automatic Gain Control adjusts the gain of your sound by measuring signal level. This way the volume of all your songs will be almost the	
···· Silence detector ···· Mixer	Imable AGC	
	Parameters	
DTMF Parallel port	Settings: Medium 🔻	
Serial port Log Explorer	Target level:	-0,5 db.
Random tracks Tags Talk over	Quiet level:	-30,5 db.
TTH Paths	Rate:	0,01
General	Gain:	0,0 db.
	Delay:	0,35 sec.
	OK	Cancel
		Cancer

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.

## DTMF

Options	X
Fade Satellite Outputs Log Password Silence detector Mixer Mixer TTH	DTMF         Configure the DTMF tone detector to synchronize your radio with another one         DTMF detector         Image: Enable the detector
DTMF Parallel Port Explorer AGC Random tracks Tags Tags Talk over General	Device: Mezcla estéreo (Realtek High Definition Audio)  Disconnection Disconnection tones: 69 Action: Play the pending events
	Connection          Tone         After       Image: Seconds         Don't connect or connect manually
	OK Cancel

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 a 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 countdov	vn (03:00.0)
<b>di</b> 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.

# **Serial Port**

Options	×
<ul> <li>- Audio</li> <li>- Fade</li> <li>- Outputs</li> <li>- Satellite</li> <li>- AGC</li> <li>- Silence detector</li> <li>- Mixer</li> <li>- Telecommand</li> <li>- DTMF</li> <li>- Parallel port</li> <li>- Serial port</li> <li>- Log</li> <li>- Explorer</li> <li>- Random tracks</li> <li>- Tags</li> <li>- Talk over</li> <li>- TTH</li> <li>- Paths</li> <li>- General</li> </ul>	Serial port         Control ZaraStudio from an external device, like a satellite decoder or a mixer, by using the serial port         Allow to control the program through the serial port         Configuration         Port:       COM1 •         Baudrate:       9600 •         Relays in use       Relay 1 • Relay 2 • Relay 3 • Relay 4         Relay 5 • Relay 6 • Relay 7 • Relay 8         Actions         Relay closed:       Connection to channel 1 •         Relay open:       Disconnection + Events •
	OK Cancel

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.** Connects to the mother station by means of the sound card set as channel 1 and stops local audio playback.

- **Connection to channel 2.** Connects to the mother station by means of the sound card set as channel 2 and stops local audio playback.
- **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 events playback.
- **playlist.** Starts playing the main playlist.
- **Events.** Plays the pending events.
- **Stop.** Stops playback.

## **Random tracks**

Options		×
Options 	Random tracks         Image: Provide the state of th	
	OK Car	ncel

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

- 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 quiet 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.mp2.

• 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.

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.

Paths

Options	×
Options	Paths         Choose the paths where ZaraStudio will store its databases         Users database folder         Folder:       C:\Users\AppData\Local\ZaraStudio         ZaraTraffic planning folder         Folder:       C:\Users\AppData\Local\ZaraStudio         Browse
	OK Cancel

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

- **Users database.** ZaraStudio uses internally a database to store the users login information, permissions and profiles. This way, if you place this database in a network folder, you can share this information with other computers in which ZaraStudio is installed.
- **Advertising plannings.** The purpose of this folder is to communicate with ZaraTraffic, ZaraStudio's advertising manager application.

# 7. The menu bar

#### File Menu

• **Exit:** Closes ZaraStudio.

## Edit Menu

• Find in folders: Opens a window that allows file search for a given directory.

#### View Menu

- Full path: Shows the complete file path for files in the playlist.
- List font: Allows changing the text font used in the playlist.
- Header in the list: Select to show playlist column titles (song title, length).
- **Song numbers:** Select to sequentially number the songs of the playlist.
- **Track bars:** Shows or hides the bars that indicate the percentage of audio which has been played, to avoid accidental alterations or to increase the available space in the screen.
- **Events and indicators:** Shows or hides the panel which contains the date, the time, the upcoming events and the file tree, to save space in the screen.
- **Main player:** Shows or hides the main player, for example, to get more free space to open auxiliary players. Although it is hidden, if it is in PLAY mode, it will continue playing the audios it contains.
- **Audio palette:** Shows or hides the instant access jingles palette which is at the bottom of the window.
- **Weather data:** When it is checked, it shows the temperature and humidity information. When it is unchecked, only the date and the time is shown.
- **Update tree:** Refreshes the list of files below the list of next events. An update should be done after changing the content of the hard disk.

## **Palette Menu**

• Edit palette...: Opens a window that allows changing audio palette assignments.

## Tools Menu

- **Mixer:** Opens the mixer application specified in the mixer options dialog.
- **Aux players:** It allows to open four auxiliary playlists. Each playlist can be assigned to a different sound card.
- **Auditor:** Opens a dialog that allows to search data in the log files, as well as to export transmission reports.
- **Voice track editor:** Opens a dialog that allows to assign voice tracks to sound files. For more information, see The voice track editor.
- **Options:** Opens a window allowing several ZaraStudio program options to be configured.
- **Manage users:** Opens a dialog that allows to add new users to the system, modify permissions of already existing users and delete users that are no longer needed.
- **Change user:** Opens a dialog that requests user login information. Then, loads the window layout and permissions of the logged user.

## **Programs Menu**

• **Edit...:** It allows to configure a unlimited number of shortcuts to programs. When executing this menu option, it will appear a dialog where you will be able to write the data of the program. You will be able to use macros in the fields "command" and "parameters". Those macros are:

\$(LogDir)	This macro is replaced by the directory where the log files are stored.
\$(NextFile)	This macro obtains the complete path to the track marked green in color.
\$(LogFile)	This macro is replaced by the complete path to the current log file.

## Help Menu

- **Contents:** Shows this help.
- About ZaraStudio: Shows information about ZaraStudio.

# 8. The audio palette

The bottom toolbar has 9 buttons that allow quick access to 9 audios. In addition, it is possible to store up to 10 different pages, allowing quick access of 90 audios.

066	067	Empty	Empty	G Empty	G Empty	Empty	Empty	Empty	1 -
32:32.8	39:13.7	O0:00	O0:00	00:00	00:00	00:00	00:00	00:00	L V

There are two ways to activate an audio:

- 1. The quickest way is to press a keyboard number. For example, to start the audio labeled "067" (number 2 on the tool bar shown), simply press the number 2 on the keyboard.
- 2. Click on the number of the audio in the tool bar with the mouse.

To modify the audio button assignments, there are two options. First, and simplest, is to drag with the mouse a file from the file tree below the window of next events (or from Windows Explorer) to the button you want to assign. The other way is to select **Palette > Edit palette...**. The following window appears:

Palette	X
Assign audios to the buttons at the bottom of the mai	in window
Page:	Rename
Audio	Mode
Cue Modify Delete Open	Save
ОК	Cancel

To change a button assignment, click on the desired button and click **Modify**... (or just double-click the desired button). A window opens that will allow selecting a sound file to assign to the button. To save the current list of assignments or to open another saved list of assignments use the **Open** or **Save** buttons. Each page of a list must be separately saved. Change active pages using the drop-down box at the top.

Also, with the **Cue** button, you can preview the audios (remember a second sound card output is required to keep the Cue playback separate from the On Air playback).

The pages of the list can have text names also. Highlight the current name and type in a new one. Click on **Rename** or press the ENTER key.

Audios have three modes of operation: **Normal**, **Loop** and **Voice over**. In order to change the mode of operation, you must right click on the desired button. A window opens to allow

toggling between those modes:

- **Normal:** The audio is played normally.
- Loop: The audio will continue to repeat until audio button is pressed again.
- **Voice over:** Before playing the jingle, it decreases the volume of the main playlist, restoring it when the jingle has finished.

# 9. Find in folders

Find in fold	lers 🗖 🖉 🗙
Find:	*musicl* Cancel
Folder:	C:\Users\Music Browse
Search	in ID3 tags
File	Folder
•	
	h.

This allows you to look for files in a given folder or its subfolders.

- **Find:** You must 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. The search is done by using masks, i.e., there is a special character which means any set of characters: \*. For instance, in order to search the file TheRadio-Id1.mp3, we must write \*id1\*. It is similar to the command line window.

# **10. TTH 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)

## **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\_0.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\_0.mp3 file would say "It's 1400 hours" for 24 hour format or "It's 2 PM o'clock" for 12 hour format.

## **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".

## 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.

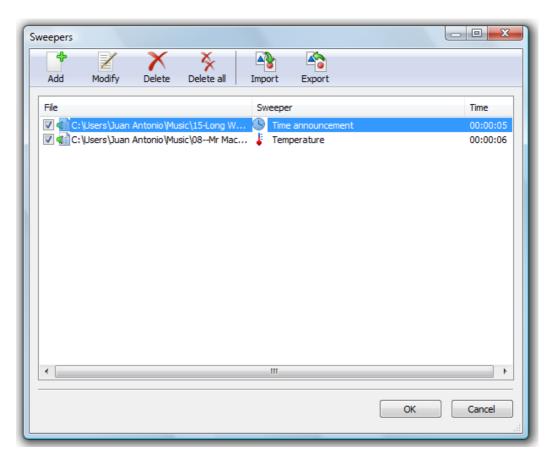
ZaraStudio has two types of voice tracking:

- 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.

## Voice tracks linked with specific audios

In order to use this feature, you have to go to **Tools > 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.

#### Add dialog

Add Sw	veeper 💌
File:	
Play	instant
0	Play during intro time
0	Play just before overlap time
۲	Play after 0 seconds
Swe	eper
۲	File:
0	Random track:
0	Time announcement
0	Temperature
0	Humidity
	OK Cancel

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

- Select the song over which you want to place an announce or voice track. You can do this by clicking the button labeled "..." 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 or a time, temperature or humidity announcement.

# 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:

Description	Length
🔊 01 - ABBA - CHIQUITITA	05:36.5
302 - COCK ROBIN - THE PRO	MISE YOU MA 03:51.4
03 - DEPECHE MODE - PERSC	ONAL JESUS 04:56.0
🔊 04 - DIRE STRAITS - BROT	Mark as next
🔊 05 - ERIC CLAPTON - CO	
🔊 06 - EURITHMYS - HOW N	Play
🕈 07 - JENNIFER RUSH - THI	Rename
🔊 08 - LIMAHL - NEVEREND	Set sweeper
N OO MADUTALCAY SEVEL	

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.

## Enabling and disabling

Voice tracking can be enabled or disabled globally in the whole application through the button on the top tool 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.

## **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:

🙆 Save as	X
Sur ( )	an Antonio 🕨 Música 🕨 👻 👍 🛛 Buscar 👂
Nombre:	plantilla.tpl 👻
Tipo:	Template (*.tpl)
Examinar carpetas	Guardar Cancelar

## **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 menu option **Tools > Log browser**... After doing that, the following dialog will open:

Auditor					
File:					
Dates	Date	Time	Action	Player	User
From: 21/09/2010					
To: 21/09/2010					
Actions:					
I All					
V Frie					
Warnings					
Startup Shutdown					
Players:					
Al 🔺					
<ul> <li>✓ Main player</li> <li>✓ Aux 1</li> </ul>					
Aux 2					
Aux 3					
AUX 4	•				4
Total:		Search	Export to te	xt file	Export to Excel
					±.

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:

- Execute Tools > Aux players > Player 1..4.
- Press Ctrl+1,..., Ctrl+4.
- Press the buttons 1 to 4, that are in the top toolbar.

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:

Aux 1 - Untitled1				×
	X 10 (a) [	) 🗋 🗗	Norm	al 🔻
Remaining: 00:00.0	L R		End tim 00:0	ne: 00:00
0				
List length: 00:00.	0	List n	emaining	g: 00:00.0
Description			L	.ength
			_	
		+	2	
				2 2

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

## 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:

Users		×
default admin		New
		Edit
		Remove
	ОК	Cancel

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.

Users	X
Access data Permis	sions
Login:	
Password:	
Confirm password:	
	Current user as administrator
	OK Cancel

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:

- **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 list mode.** Gives access to the playlist mode dropdown.
- **Schedule events.** Lets the user access to the event scheduler.
- **Enable/disable events.** Allows the user to enable or disable event playing.
- **Play pending events.** Lets the user play manually the pending events.
- **Discard pending events.** Gives the possibility to remove the pending events.
- Auditor. Gives access to auditor tool.
- **Voice track editor.** Allows to access to the voice track editor.
- **Options.** Gives access to the options dialog.
- **Minimize ZaraStudio.** Lets the user minimize ZaraStudio's main window.
- **Close ZaraStudio.** Offers the user the ability to close the application.
- **Manage users.** Gives access to the user management window.
- 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.

## 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 status bar will display the currently logged user name:

