X Radio

(Rev. 1.6 - ENG)

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1. INTRO

XRadio is the new solution by **AxelTech** that extends the concept of Radio Automation to a full Audio and Media Content Management & Publishing platform. **XRadio** is rooted in the solid ground of AxelTech well known **DJPro** Radio Automation: that know-how evolved to provide renewed and enhanced tools to handle run the large variety of content that any Radio Station has to manage nowadays.

XRadio is a flexible and scalable solution, perfect to match the needs of different size organizations from Regional to National Networks: **XRadio** manages one or more Radio Stations with simultaneous and multiple playouts to provide different Broadcast Areas with Advertisement Splits.

1.1 GENERAL FEATURES

- Stand-alone or client/server configuration with unlimited clients
- Unlimited stations/channels
- Automatic failover to a secondary server/archive
- Modular design by functionality (On-Air, Production, Programming, etc…)
- Advanced XML Data Exchange
- MsSQL Database
- Cloud and IP workflows compatible
- Skin customization
- One click concept mode
- Drag and drop interaction
- Interfacing with both proprietary and third-party audio mixers
- Automatic ingest from folder or FTP
- Advanced interface for third-party systems (scheduling, news, etc…)
- GPIO triggers (Moxa, Lawo, Advantech, Axia, Com port, etc…)
- Advanced TCP/IP, UDP, SNMP, HTTP triggers
- WDM and ASIO drivers
- Audio over IP interfaces (Dante, Ravenna, Livewire, etc…)
- IP Streaming
- Plays any audio file
- Plays any video file for visual radio
- RDS management via XML and UECP, EPG, playlist and metadata WEB integration
- Complete system administrator tools, rights management on features and modules

2. FIRST INSTALLATION AND CONFIGURATION

Before proceeding with the XRADIO system installation, we kindly ask you to carefully read this guide in all its parts and follow all the installation procedures.

Minimum requirements for the installation:
- To be familiar with Windows operating system;
- To be able to install audio cards;
- To know the basics of network systems.

System setup:
For a correct installation and system setup procedure, you have to follow these steps:
1. OS settings;
2. Audio card installation;
3. MS SQL Server installation
4. XRadio Software installation
5. First time run of XRadio system

2.1 OPERATING SYSTEM SETTINGS

Be sure no 'power save' is activated

1	Open the *Start* menu
2	Open the *Control Panel*
3	Click on *Power options*
4	Click on *Change plan settings*
5	Select *Never* for both *Turn off the display* and *Put the computer to sleep*
6	Click on *Advanced settings*
7	Select *Never* for *Turn off the hard disk after*

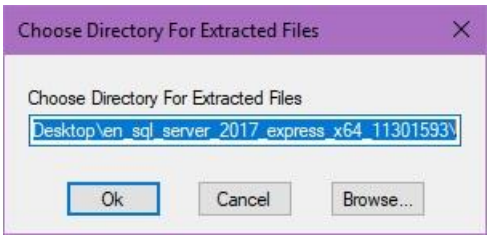
Disable the system sounds on Windows

1	Open the *Start* menu
2	Select the *Control Panel*
3	Select *Sound*
4	Select the *Sounds Tab*
5	Click the *Sound Scheme* and set it to *No Sounds*
6	Click on *Apply*
7	Click on *OK*

ATTENTION: for the workstations running OnAir, make sure you enabled, from the BIOS, the automatic power switch-on in case of power fault. Moreover, no user and password has to be set at Windows startup.

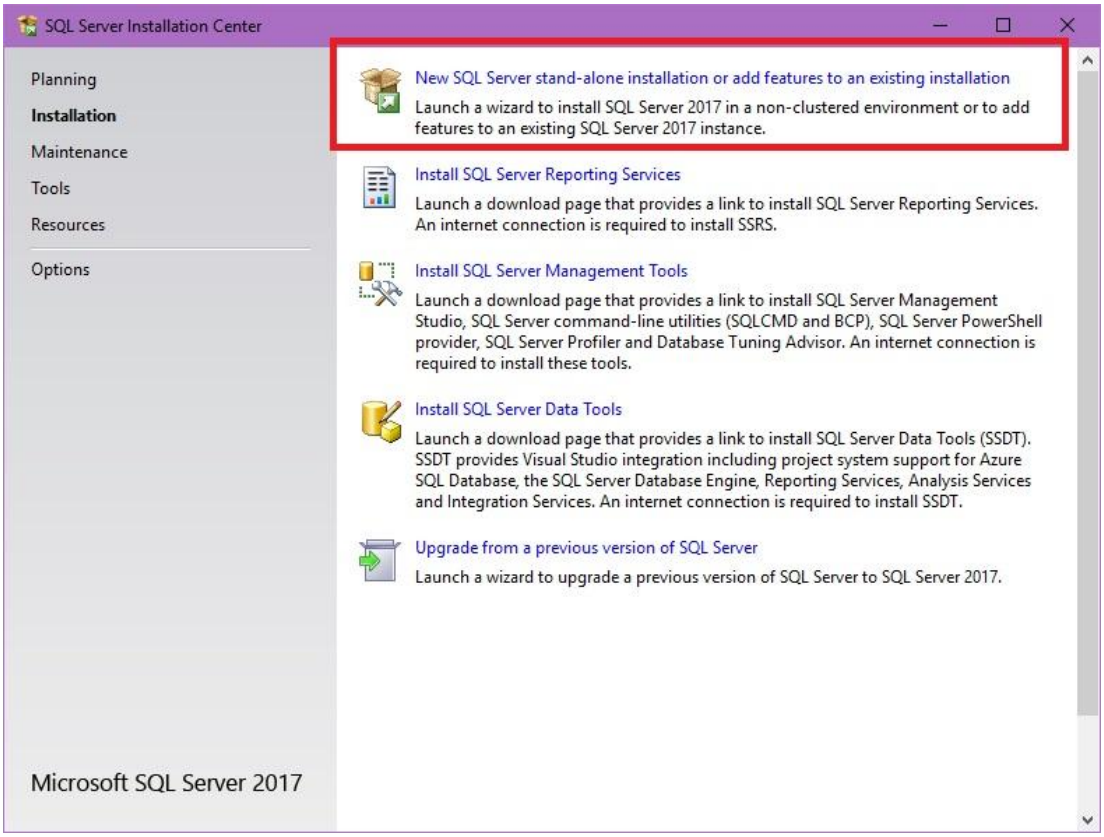
2.2 INSTALLATION OF MS SQL SERVER

Launch setup and choose CUSTOM installation

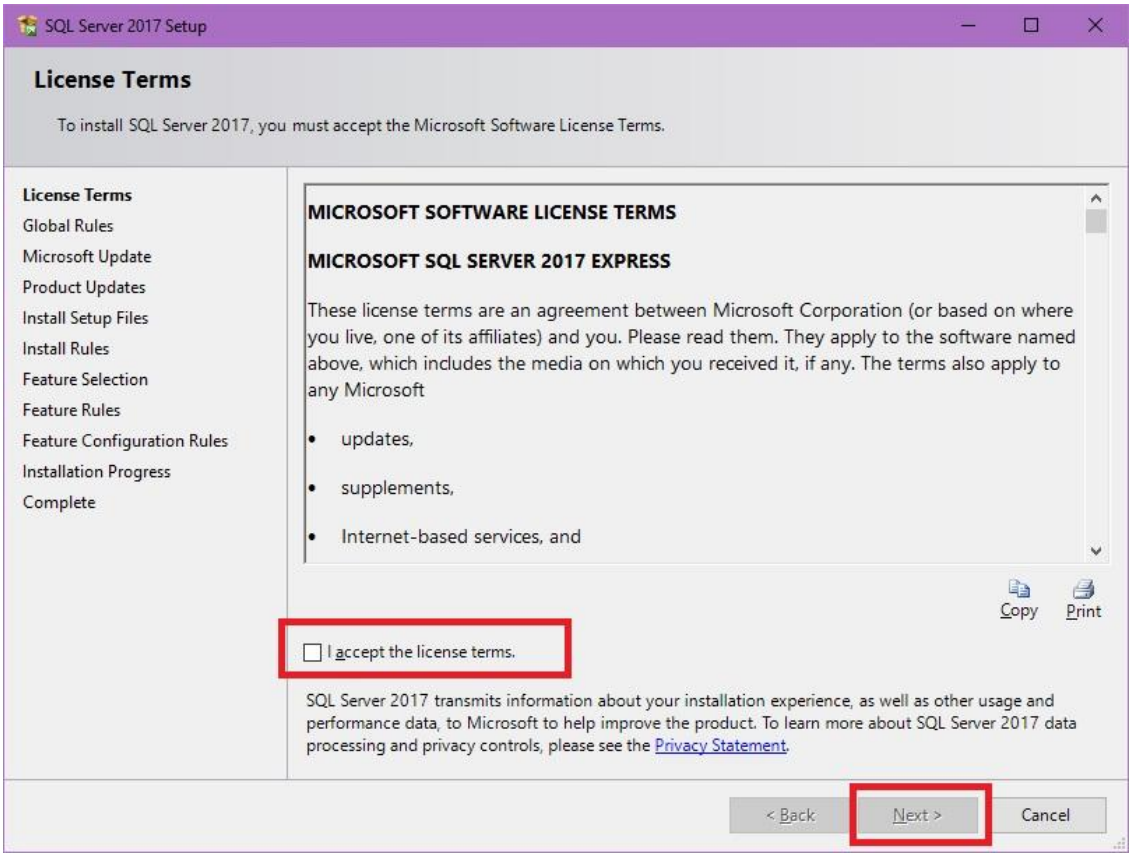


Leave or change the path for extracting installation files and choose OK.

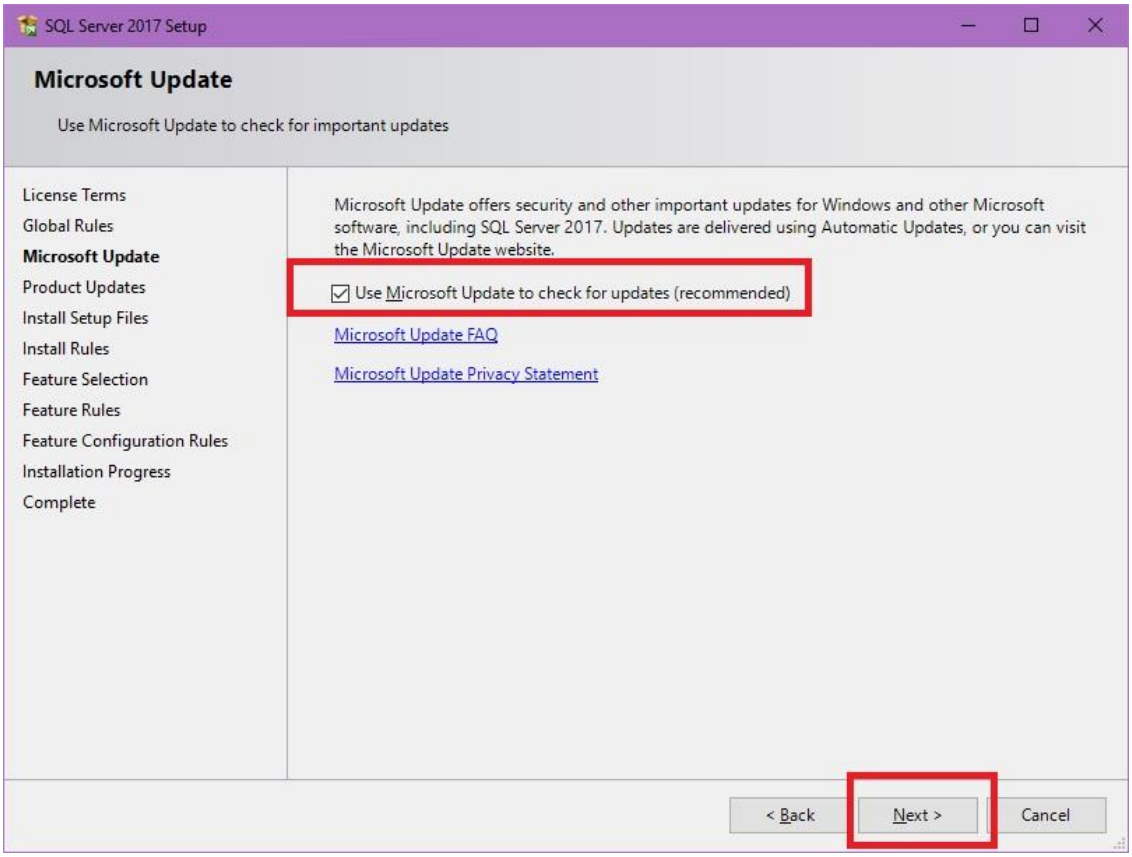
In the window that opens, choose **New SQL Server stand-alone installation or add features to an existing installation**



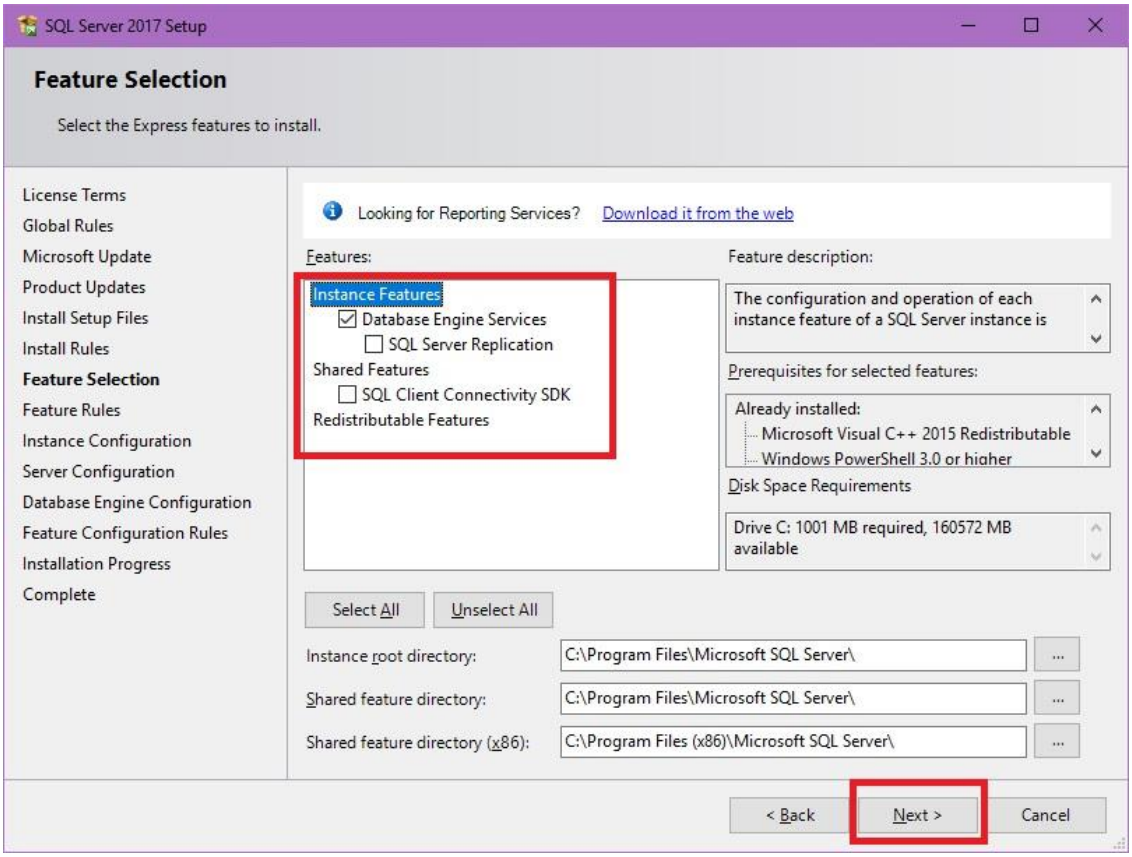
Accept the license terms and press *Next*



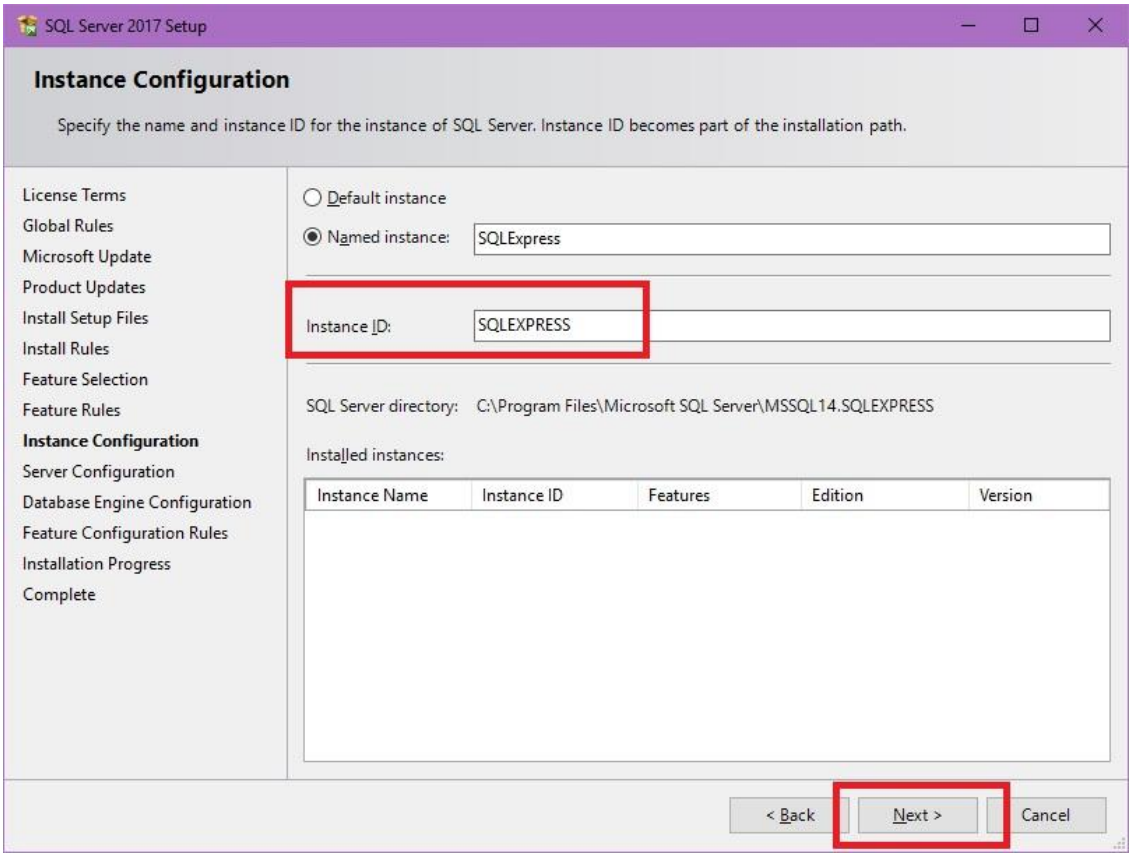
Select **Use Microsoft update to check for updates (recommended)** and press *Next*



In **Feature selection**, leave the check mark only on **Database Engine Services** and press *Next*

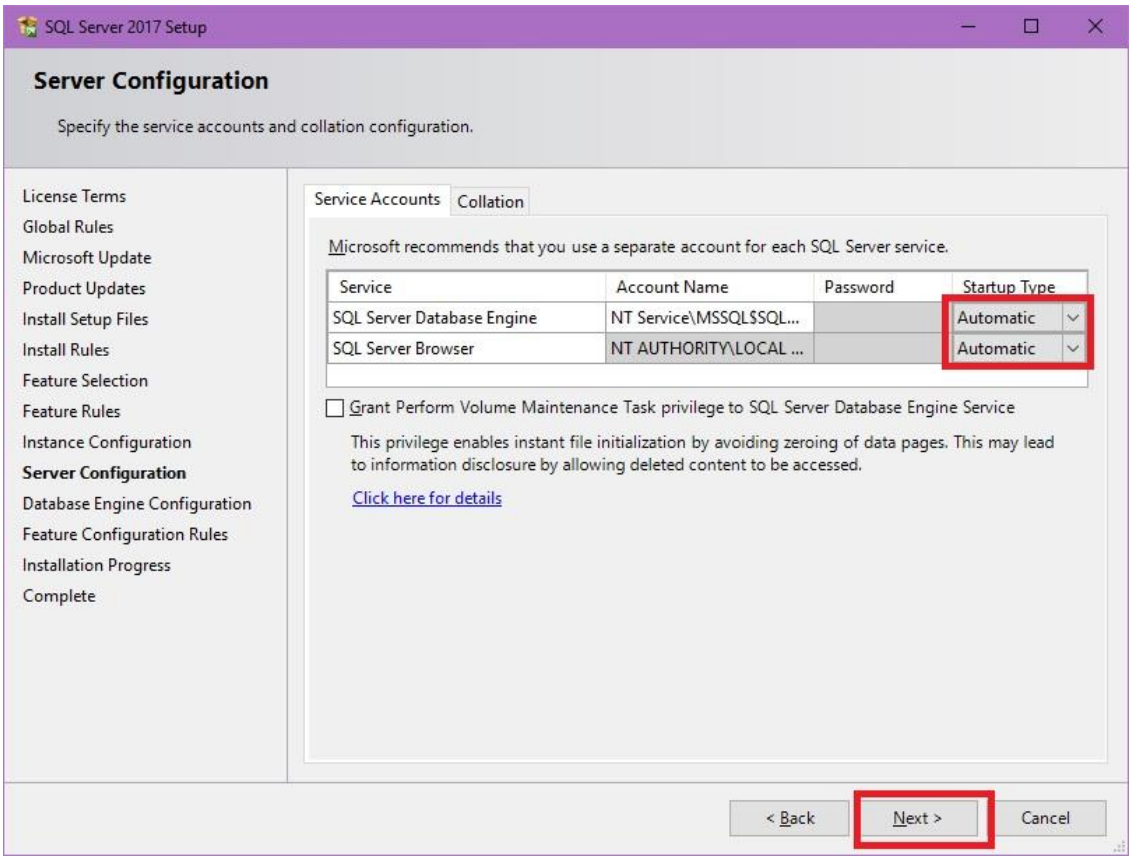


In **Instance configuration**, set the name of the instance you want to create in **Instance ID** and press *Next*



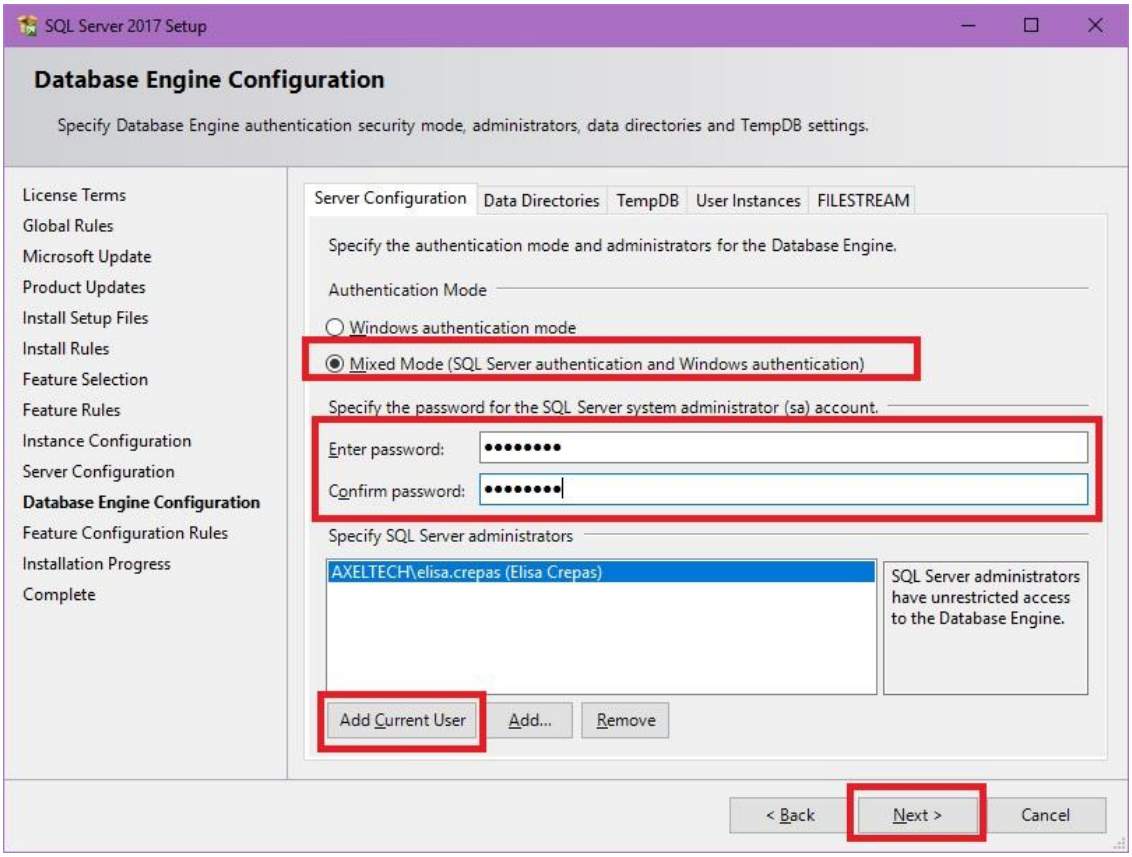
IMPORTANT: if you install multiple instances on that machine, give a unique and meaningful name; if you think that you will never create further instances, you can leave the default name.

In **Server configuration**, set both **SQL server Database Engine** and **SQL Server Browser** to **Automatic** and press *Next*

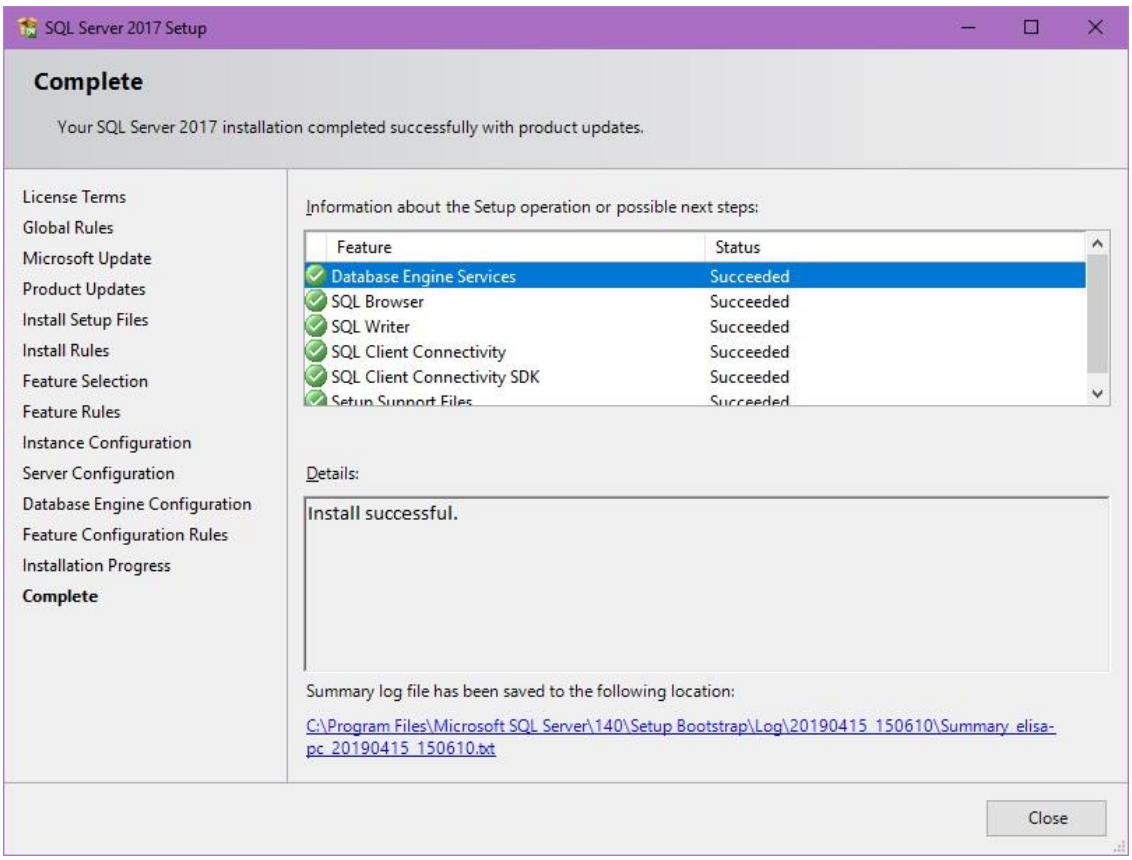


NOTE: If you are configuring standard SQL, also set **Automatic** to **SQL Server Agent**

In Database **Engine Configuration**, select **Mixed Mode (SQL server authentication and Windows authentication)** and set a password.
Click on **Add Current user** (if it is not already created by default) to add the windows user.
Press *Next*.

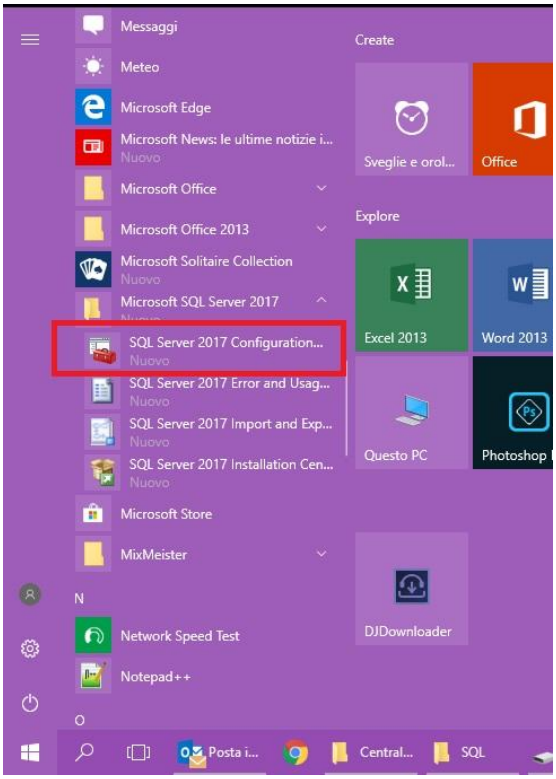


Once the installation is complete, a window summarizing the outcome of the operations appears.

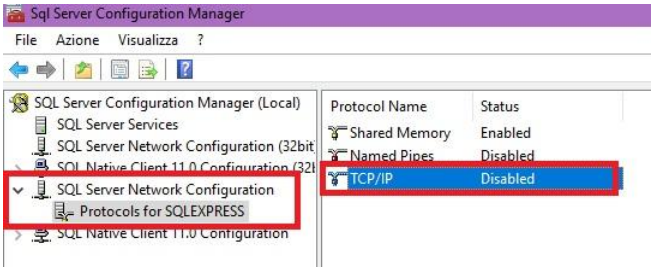


Press *Close*.

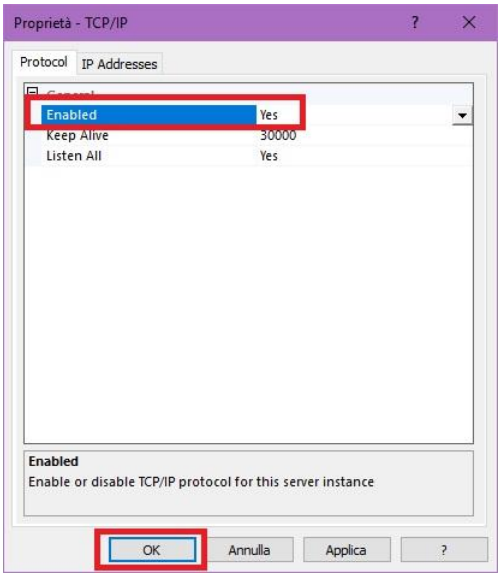
Open Windows menu and select **SQL Server 20xx Configuration**



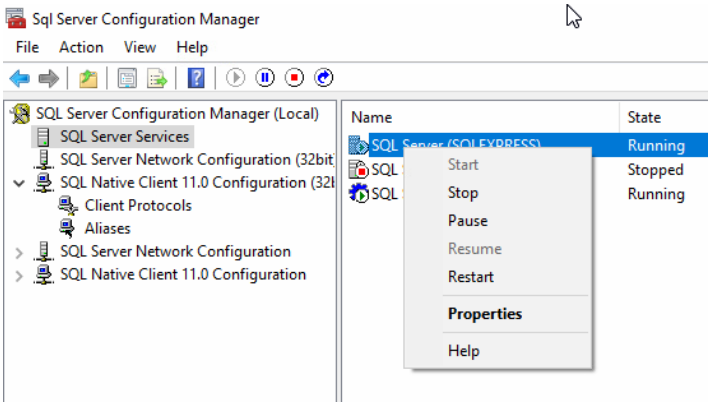
Go to **SQL Server Network Configuration** and then to **Protocols for SQLEXPRESS** (or **Protocols for MYSQL Server** if it is a **SQL Standard**) and check if **TCP/IP** is enabled or disabled.



If it is disabled, double click on it and enable it by setting YES



To activate the change, select *SQL Server Services* from the tree menu, right-click the **SQL Server** item and click *Restart*.



Windows Firewall configuration

Rule for SQLServr.exe

1. Open **Windows Defender Firewall** and choose **Advanced settings** from the left menu.
2. Select **Inbound Rules** and click on **New Rule**.
3. In the Wizard that appears, select **Program** and click *Next*.
4. Select the path to **SQLServr.exe** in *This Program Path* and click *Next*. If you are using SQL Express, the path is C:\ Program Files\ Microsoft SQL Server\ MSSQL15.SQLEXPRESS\ MSSQL\ Binn\ SQLServr.exe
5. Select **Allow the connection** and click *Next*
6. Select the network type to which you want to apply the rule and click *Next*
7. Specify a name for the rule (e.g. *SQL Server*) and click *Finish*

Rule for TCP port

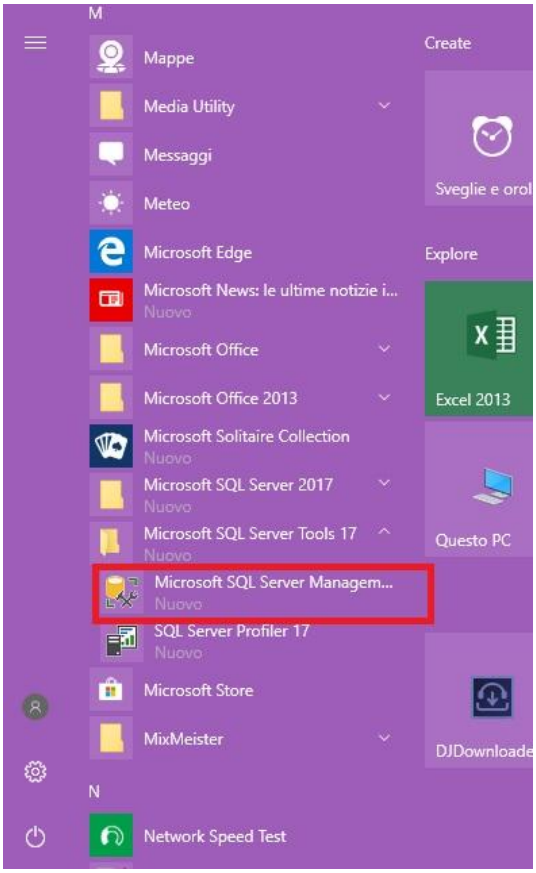
1. Open **Windows Defender Firewall** and choose **Advanced settings** from the left menu.
2. Select **Inbound Rules** and click on **New Rule**.
3. In the Wizard that appears, select **Port** and click *Next*.
4. Select **TCP** and set **1433** in *Specific local ports*, then click *Next*
5. Select **Allow the connection** and click *Next*
6. Select the network type to which you want to apply the rule and click *Next*
7. Specify a name for the rule (e.g. *SQL Server TCP Port*) and click *Finish*

Rule for UDP port

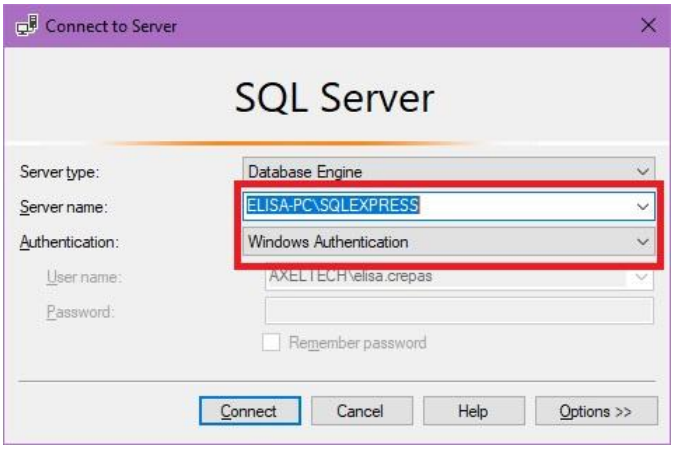
1. Open **Windows Defender Firewall** and choose **Advanced settings** from the left menu.
2. Select **Inbound Rules** and click on **New Rule**.
3. In the Wizard that appears, select **Port** and click *Next*.
4. Select **UDP** and set **1434** in *Specific local ports*, then click *Next*
5. Select **Allow the connection** and click *Next*
6. Select the network type to which you want to apply the rule and click *Next*
7. Specify a name for the rule (e.g. *SQL Server UDP Port*) and click *Finish*

Configuring SQL Server Management

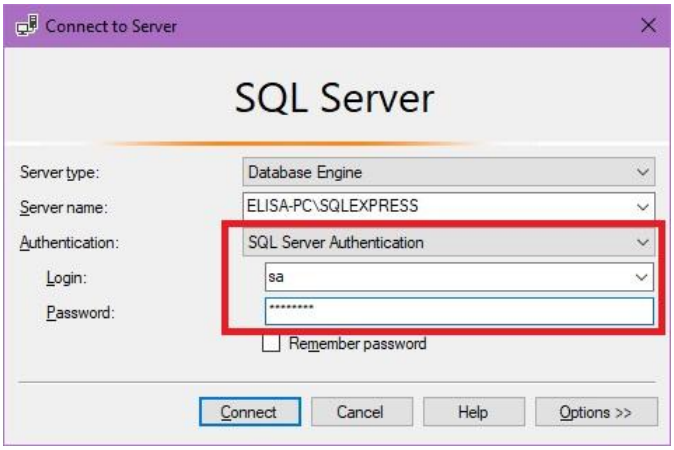
After installing **SQL Server Management Studio**, launch it from the *Microsoft SQL Server Tools* menu:



The authentication panel opens showing access via Windows user



Select **SQL Server Authentication** from the *Authentication* menu to log in:
Login = *sa*
Password = the one chosen when installing SQL Server



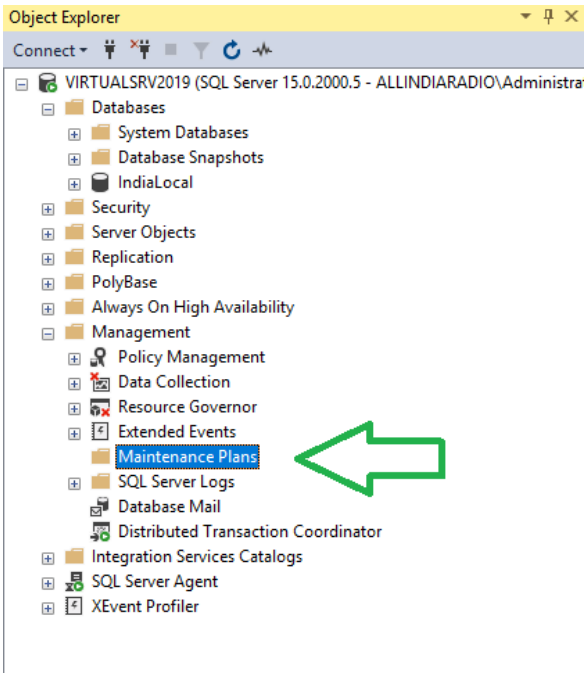
Click on *Connect*.

NOTE: if you launch **SQL Server Management Studio** from a PC other than the one on which you installed SQL Server, you must search for the Server by opening the *Server name* menu and selecting the *<Browse for more…>* item; in the window that appears, select the *Network Servers* tab, wait for the *Database Engines* item to appear, expand it by clicking on +, select the desired SQL Server from the menu that appears and click OK to confirm.

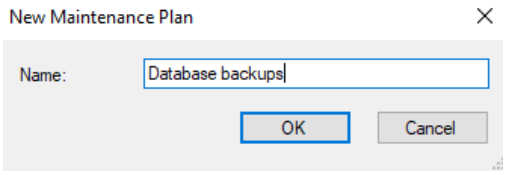
Backup configuration and maintenance

NOTE: Backup and maintenance rules are not available for *SQL Server Express* version

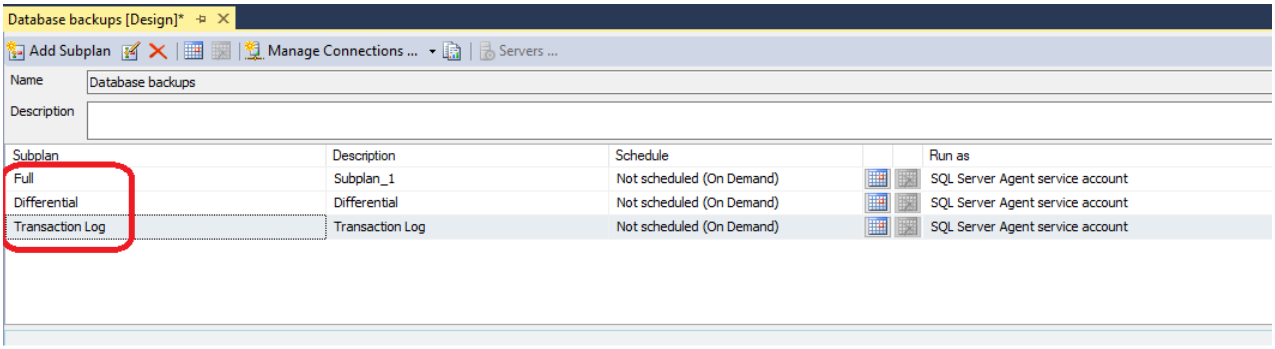
Open Server Management Studio and select **Maintenance Plains**:



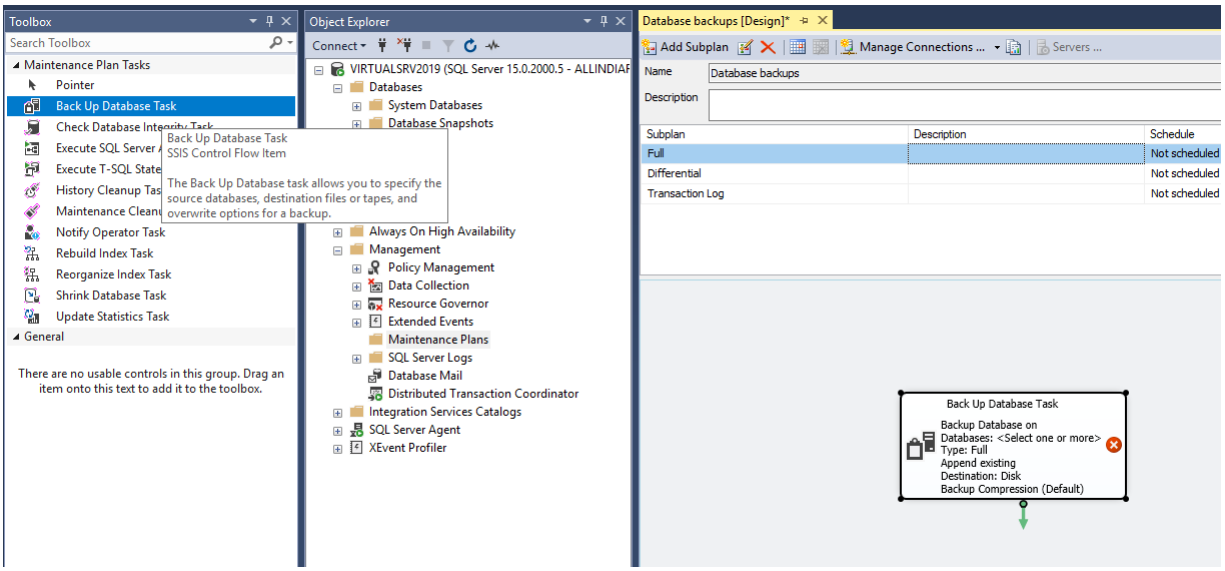
Right click, select “New Maintenance Plan…” and then assign a name to the plan (eg: Database backups).



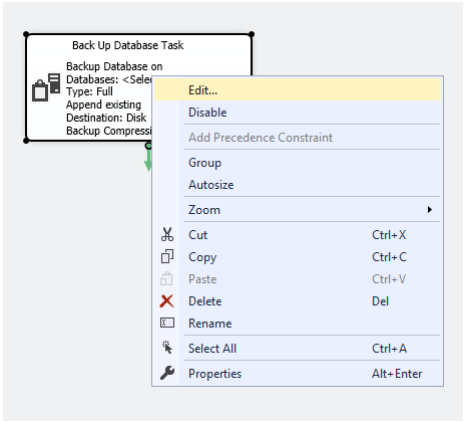
Create 3 Subplains with the names indicated below:



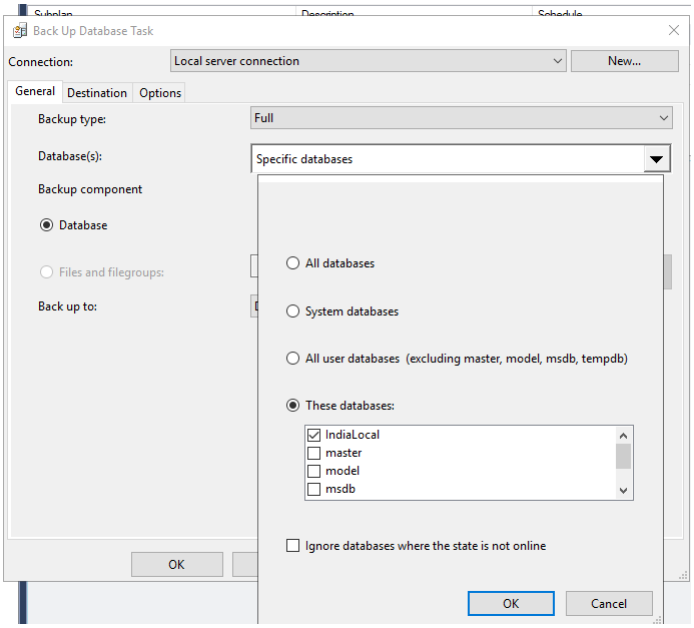
Select **Full** and drag and drop the Backup Database Task:



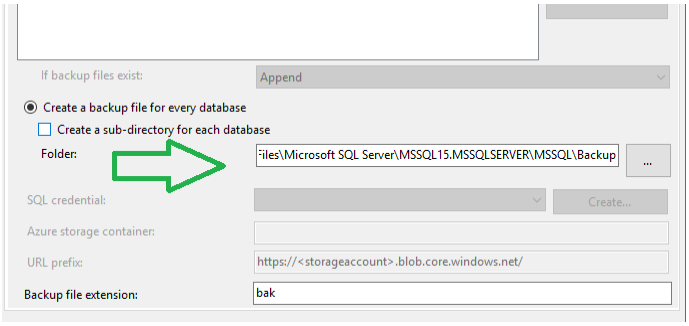
Right click and Edit:



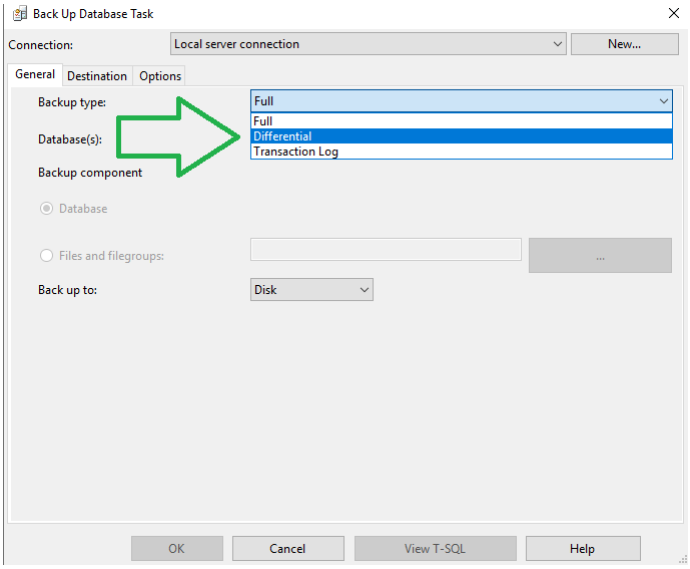
Select the database that needs to be backed up:



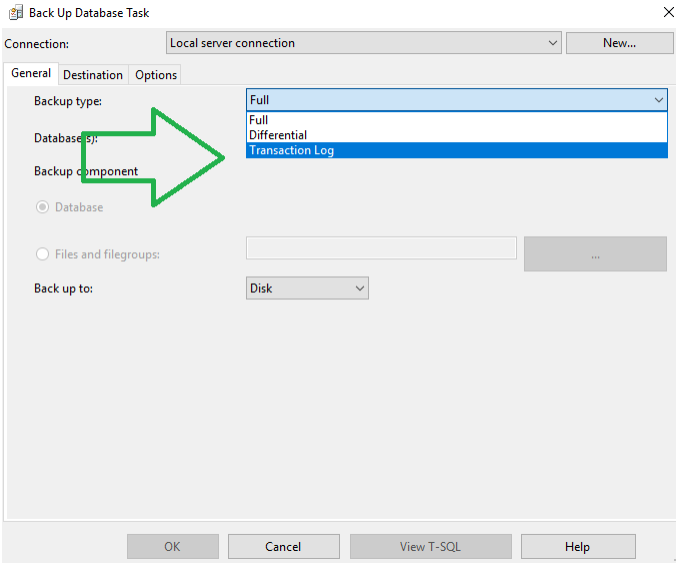
And the destination folder:



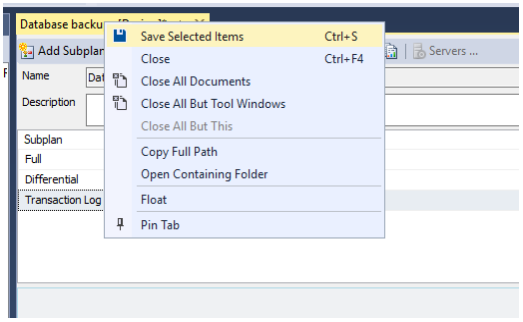
Select **Differential**, drag and drop the Back Up Database Task and right click. Configure as the previous one but select *Differential* as the backup type and apply it to all databases.



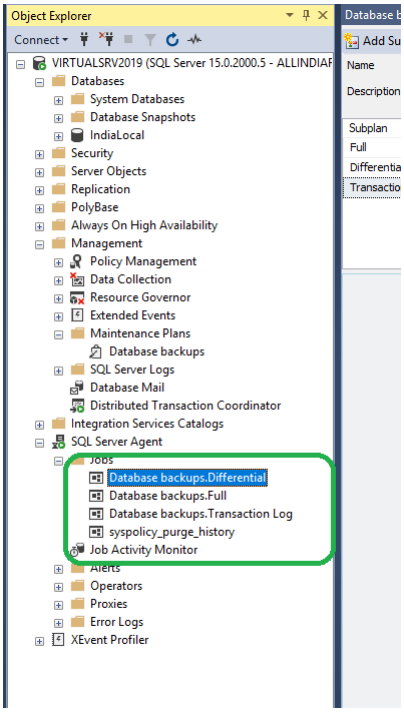
Select **Transaction log**, drag and drop the Back Up Database Task and right click. Configure as the previous one but select *Transaction log* as the backup type and apply it to all databases.



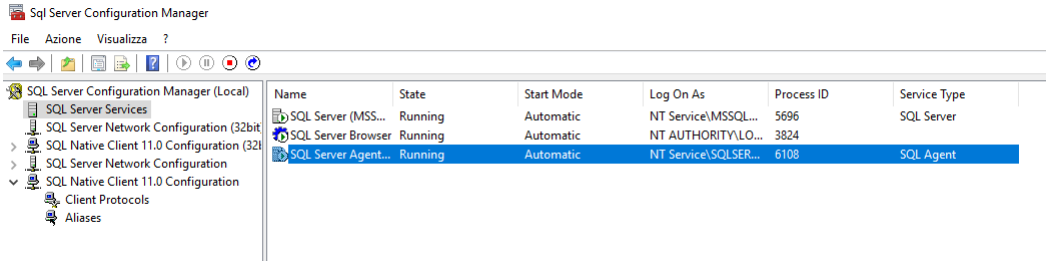
Save the **Maintenance plain**



The system automatically created 3 new Jobs:

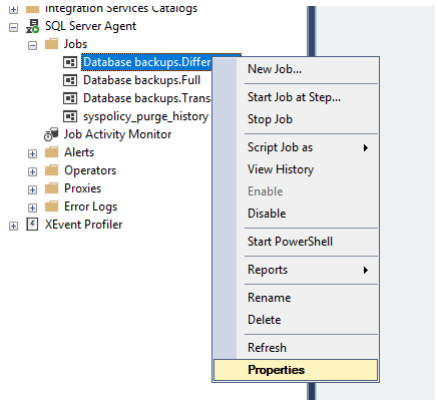


Verify that SQL Agent is active:

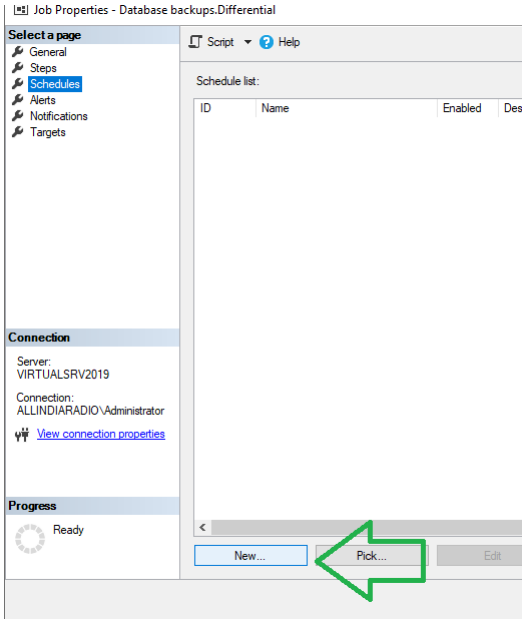


Now you can schedule Jobs.

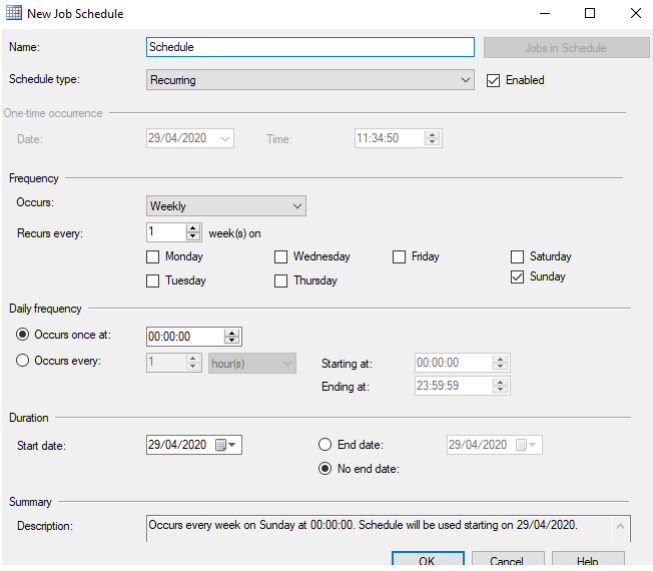
Select the single Job, right click and *Properties*:



Select *Schedules* and then create a new schedule with *New…*:



Plan the Job according to your preferences:



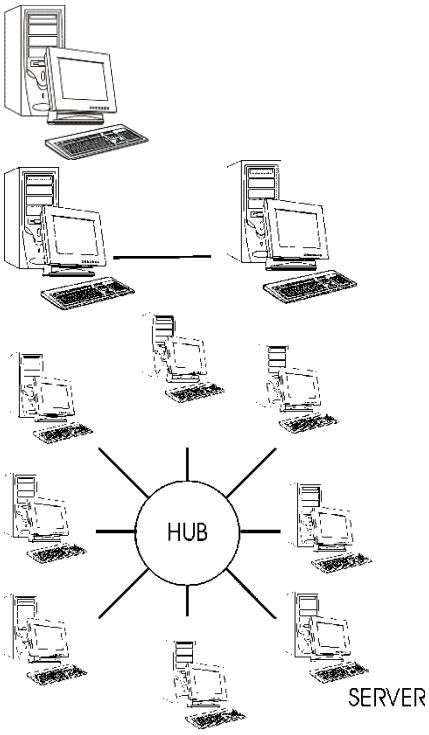
2.3 INSTALLATION OF XRADIO SOFTWARE

You can install XRadio in three different system types.

CASE A DJ PRO system will be typically composed by a stand-alone PC (it doesn't need an Ethernet card).

CASE B DJ PRO system will be typically composed by two workstations (Client) connected on a local network (LAN), running DJ PRO software. Server application will run on the same computer running the 'On Air' application.

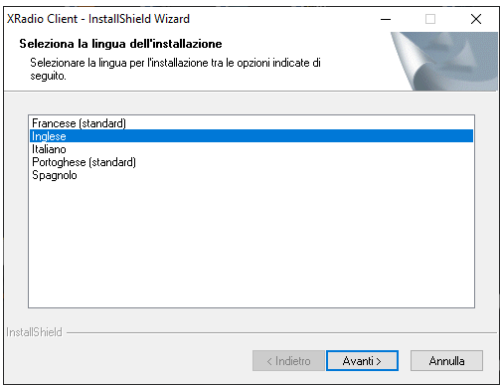
CASE C The DJ PRO system will be typically composed by several workstations (Clients) connected to the Server on a local network (LAN). Server application will be installed on a dedicated PC (acting as a stand-alone server)



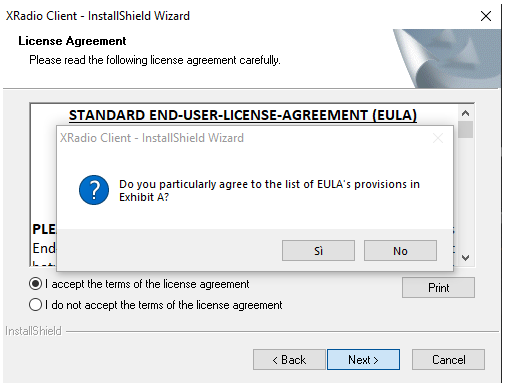
INSTALLATION

From the USB drive, double click on *XRadioSetup.exe* to start the installation. This installation must be executed on any Pc that will run Dj-Pro.

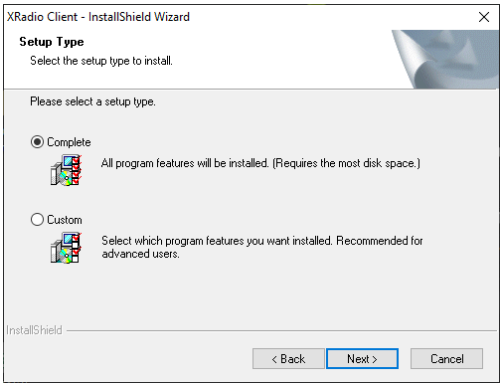
The setup is divided in two parts: CLIENT and SERVER. Below, you will find the main steps of the installation.



Select the language for the installation and click on *Next* in this window and in the following one.

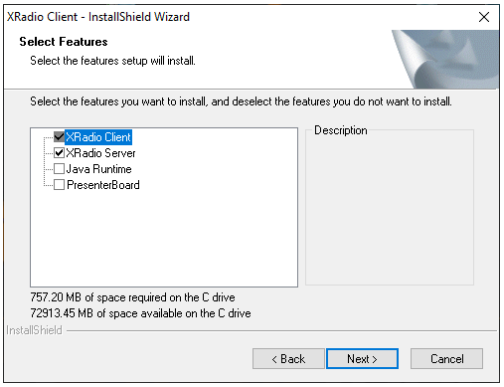


Read the STANDARD-END-USER-LICENSE-AGREEMENT (EULA), select "I accept the terms of the license agreement" and click on Next. You will be asked to confirm the agreement to the terms.



Then a window will appear, you can choose a *Complete* or *Custom* setup.

If you select the Complete Setup (default) and click on *Next*, the program will guide you through the installation of all the available features of XRadio.

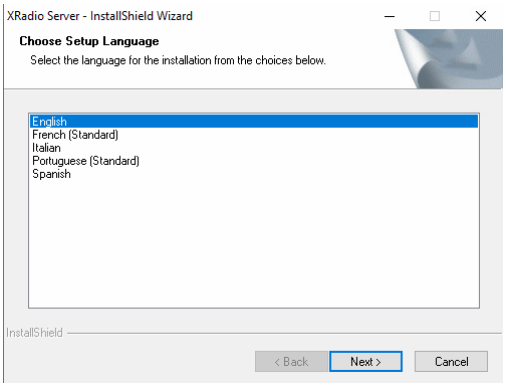


If you select the Custom Setup and click on *Next*, the following window will appear.

The Custom Setup is useful if you already installed the Server part and you need to install only the Client in a new Pc, so you can uncheck the "XRadio Server" option.

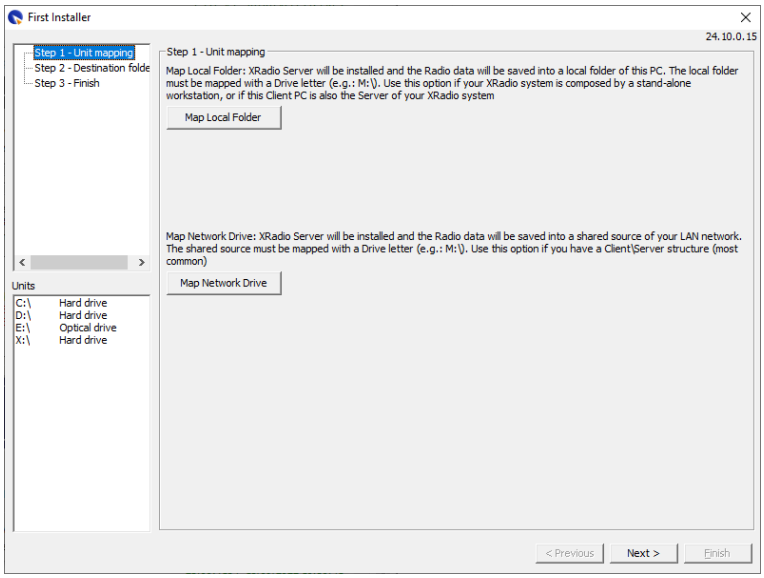
Once you have selected your preferences, click on Next and the program will start installing XRadio Client into C:\Program Files(x86).

If you have selected the Complete Setup, the program, then, will automatically start XRadio Server installation.



If you have already run the installation before, on the same Client or on another Client that shares the same M:\ drive, a window ill appear. Choose "*Maintain or update the instance of this application selected below*", select the related instance, then click on "*Next*".

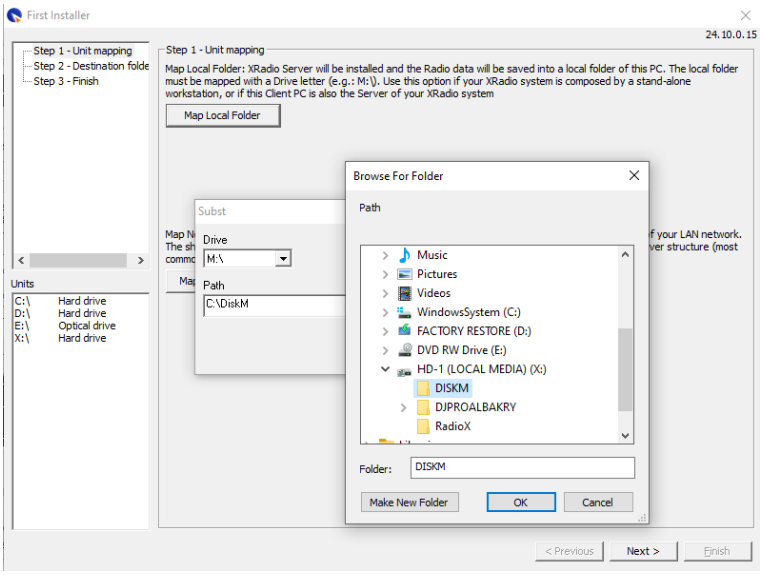
For the first installation, a utility will run and help you to map the Server unit and create the folder where you will install XRadio



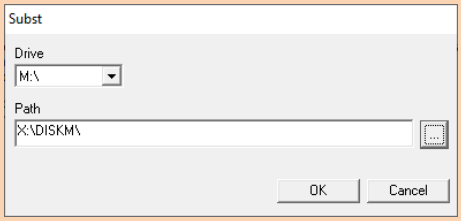
You can choose between two options:

Click **Map Local Folder** if you are installing XRadio on a Stand-alone PC, or if the Client PC is also the Server of your Radio system (case A and B).

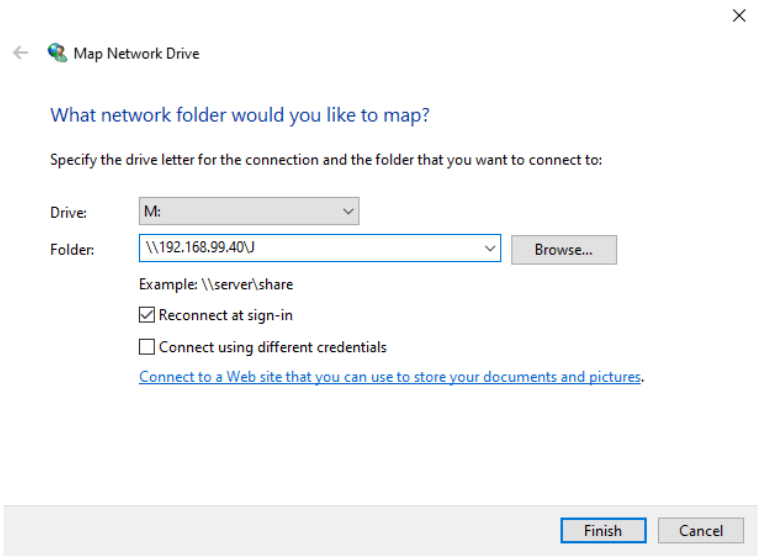
Click **Map Network Drive** if you are managing a Client\Server structure and you will install XRadio on the main Server



If you choose *Map Local Folder*, you must select the *Drive* letter (e.g.: *M:*\) and the local folder that will be mapped with that letter. In our example, we are mapping the X:\DISKM folder as the M drive.



Confirm, and the new mapped drive will appear in the *Units* list on the left.

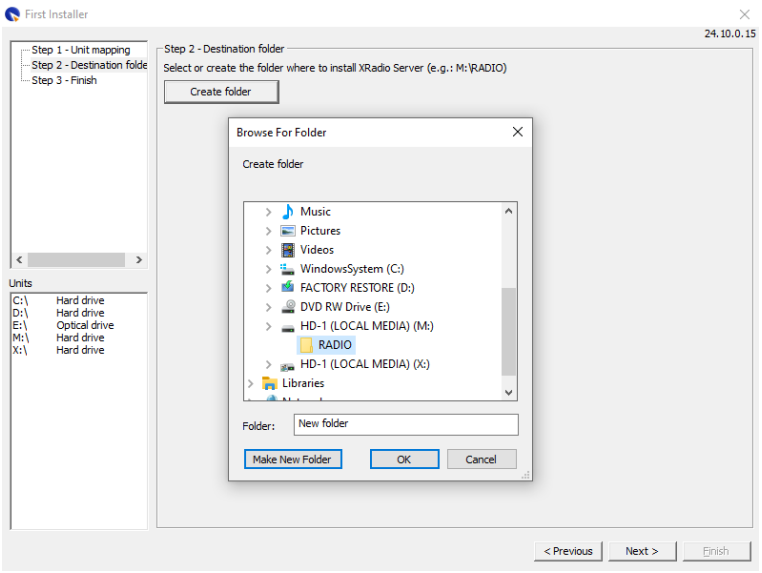


If you choose *Map Network Drive*, the related Windows utility for mapping a network folder opens.

Select the Drive (e.g.: *M:*), select the shared *Folder* in your network and enable *Reconnect at sign-in*.

Click *Finish* to confirm.

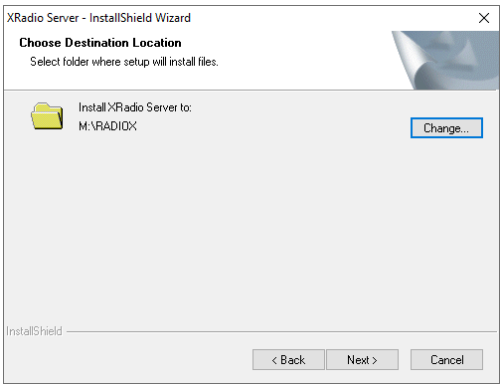
Once you mapped the drive, click *Next* to move to Step 2 of the process.



Click **Create folder** to browse your system and select the Drive you mapped before (E.g.: *M:*\). Create a folder into the Drive or select an existing one and click OK.

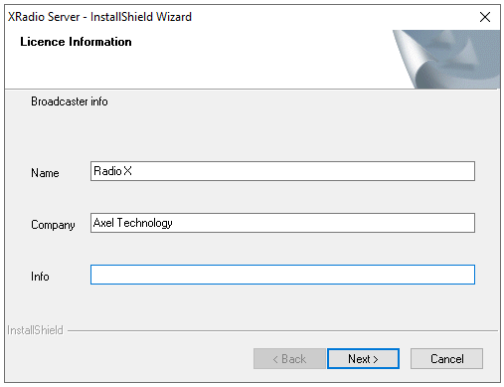
Throughout this guide we will use the path *M:\RADIOX* as an example.

Click Finish to close the dialog box and proceed with the installation.



A window will appear so that you can select the folder where you want to install the Server part. Click on *Change* and select the folder from the window that will appear, then click on *OK*.

In our example, we are installing our data in M:\RADIOX.



In the "*Licence Information*" window, you can insert some data, such as the name of your Radio and Company.

You can change or update these data any time from the *Broadcaster Info* section of XRadio Settings panel.

The Server application data will be installed into the selected folder, then the installation procedure will automatically detect and set the audio cards installed on the Pc to be used with Dj-Pro. See paragraph below to see how to edit the audio card settings.

The software installation will work in background, it will end ONLY when the related icons on Windows bar will disappear. If required, restart your Pc to complete the installation.

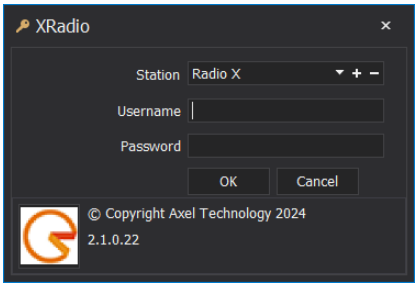
2.4 FIRST TIME RUN OF XRADIO

Make sure you inserted the hardware key (dongle) in a USB port of any PC running the Dj-Pro Client.

NOTE: if you are working on a Client-Server based system, you must start the Server before any other workstation, in order to have its shared sources available on the Clients.

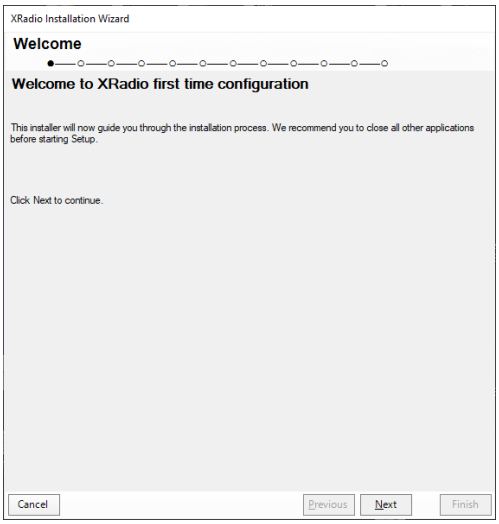


Double click on the *XRadio* icon on the desktop to run the program

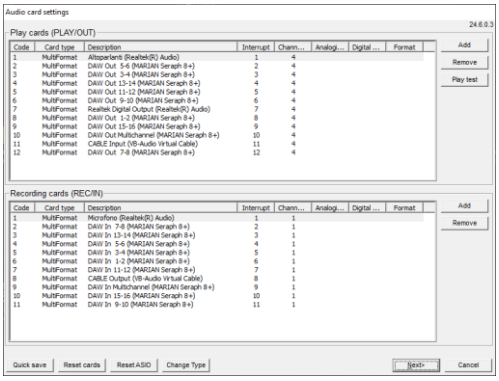


A window will appear where you must insert *Username* and *Password.*

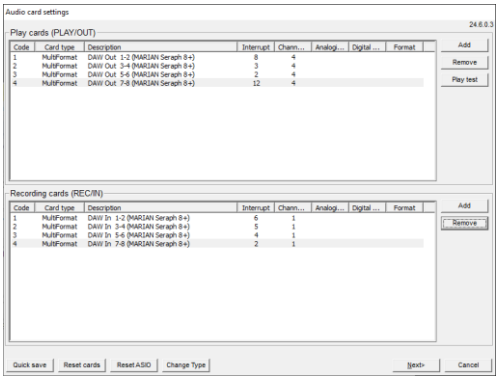
For the first access, insert *admin* as the username, no password, and click *OK.*



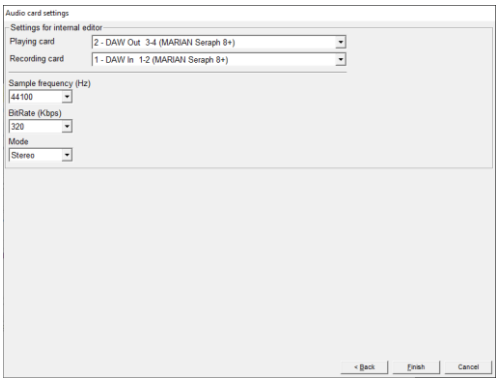
The first time you double click on the XRadio icon to run the program, a **Wizard** will start and guide you to the basic configuration of the program.



Click Next to continue, and the *Audio Card settings* window appears with the list of all the available audio devices on the machine, divided by outputs and inputs.



Delete all the devices you do not want to use in XRadio and order the remaining ones.

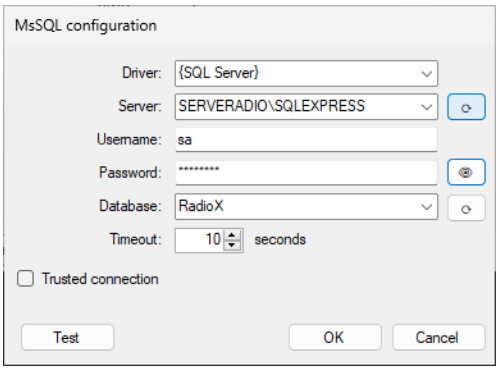


Click *Next* to open the window where can choose the audio devices you want to user for the audio editor and the default audio format that will be used when you will record or import the audio files into the system.

Click *Finish* to save the settings and confirm.

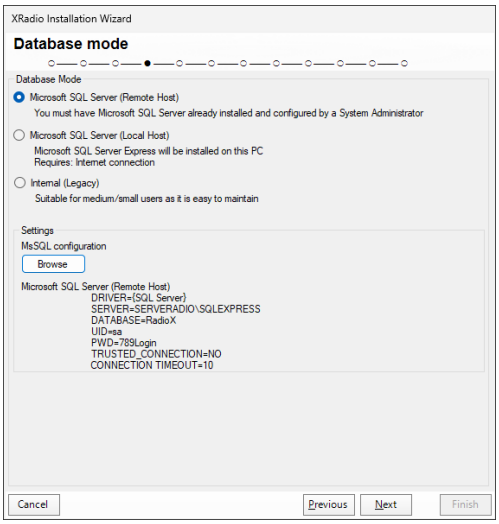
To know more about the Audio Card Configuration, see paragraph 8.10

In the **Database mode** window, select which SQL Server type you want to use: *Remote Host* (default) or *Local Host*. If you select the Remote Host, click on *Browse* to open a window where you will insert the connection data to the SQL Server:

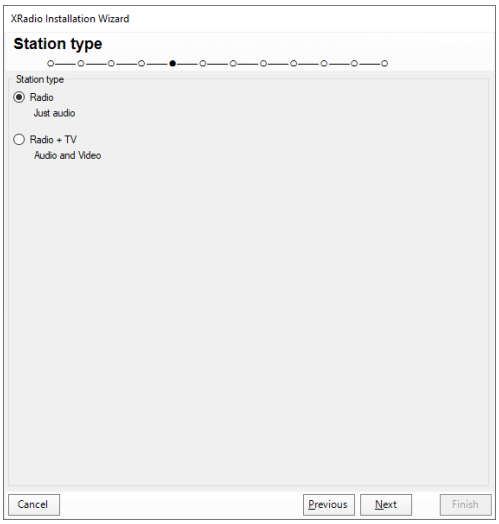


- *Driver*: SQL Server
- *Server*: click on the arrow button to load the list of available SQL Servers and select one
- *Username* and *Password*: insert the username and password you previously set to access the SQL Server
- *Database*: write a name for the scheme that will be created to be the database of your system

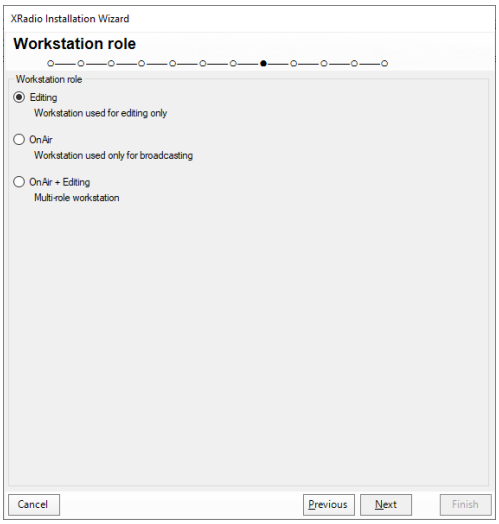
Click *Test* to if you want to check the connection to the selected Server.



Click OK to save the settings, the selected configuration will appear under the Browse button.



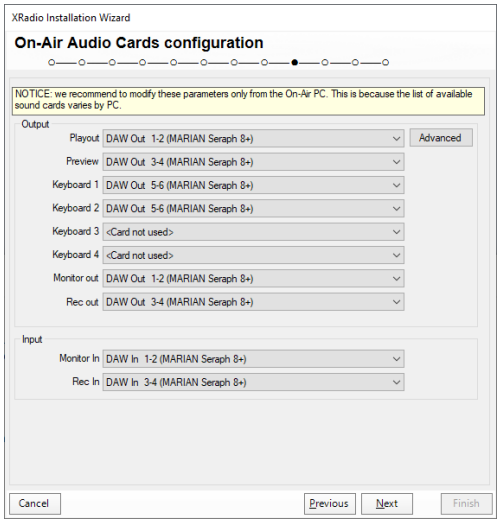
Select the **Station type** between *Radio* (default) and *Radio + TV* (for Visual Radio systems) then press *Next*.
In our example, we select *Radio.*



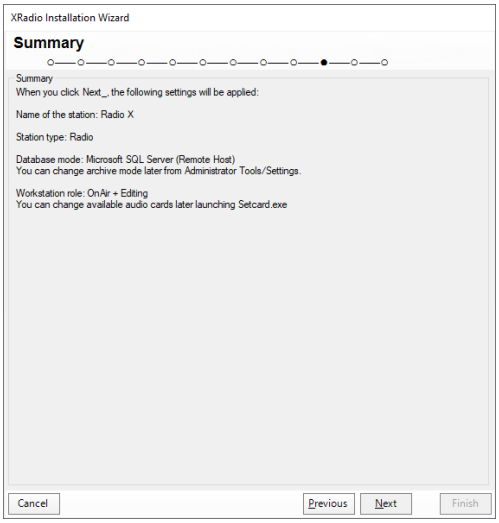
Select the **Workstation role** among:
Editing, if you want to use the workstation to manage data and schedule
OnAir, if you want to use the workstation for the OnAir playout only.
OnAir+Editing, if you want to use the workstation for both .

Press *Next*.

In our example, we select *OnAir+Editing.*



In the On-Air Audio Cards configuration, set the audio outputs and inputs you want to use for *Playout*, *Preview* (CUE), *Keyboards* (Hot Keys) *Monitor* (broadcast of an external audio signal) and *Rec*, according to the devices you previously configured in the Audio Card settings, then click *Next.*



A window with the Summary of all the selected settings will appear; click *Next* to apply them and start the creation of SQL structure.

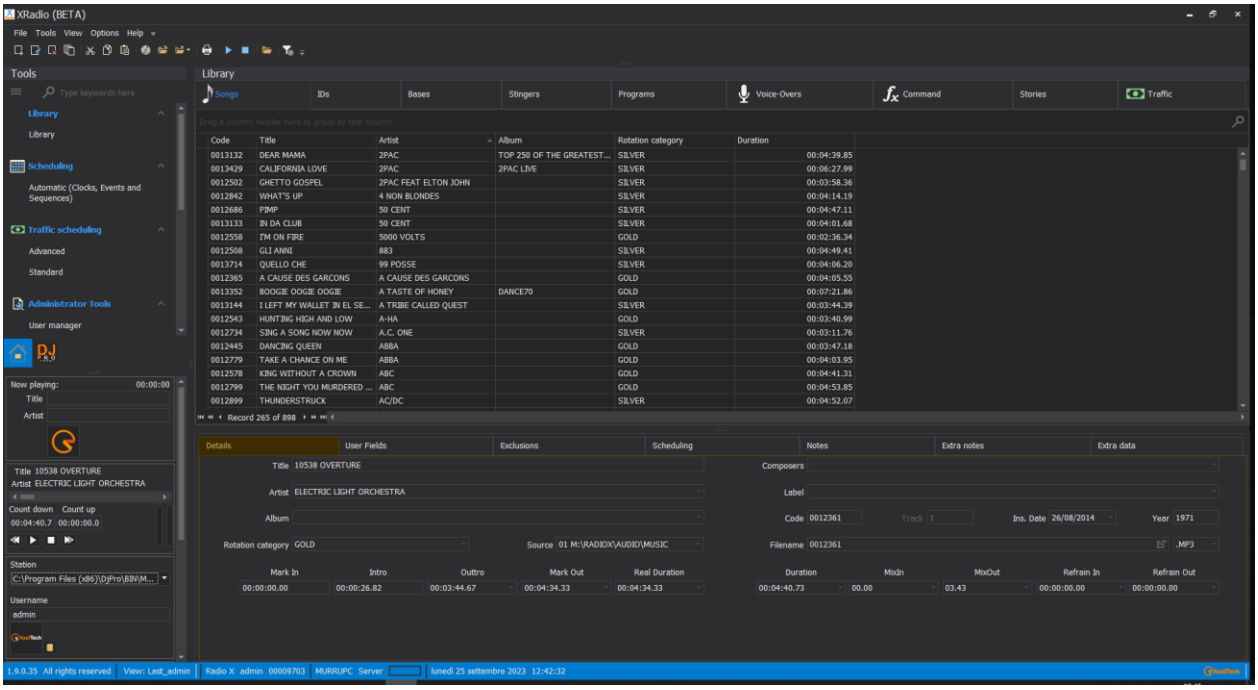
3. WORK AREA

The setup of the main interface is strictly connected to the user you are accessing with. In the following paragraph, we will show the setup related to the default *admin* user.

The *Tools* menu on the left shows the currently available applications of the program, while the *Library*, which shows the content of the selected audio table, occupies the most part of the window. Below the table, you can find the info of the selected item into the table, divided into different sections (tabs).

The Toolbar on top of the window contains the buttons with the main functions associated to the selected table, and the Menu bar with all the program settings.

The Status bar at the bottom of the window gives the user several information such as the current View, the current User, the license number of the software and the current Source (to know more, see *Source Autochange* paragraph).



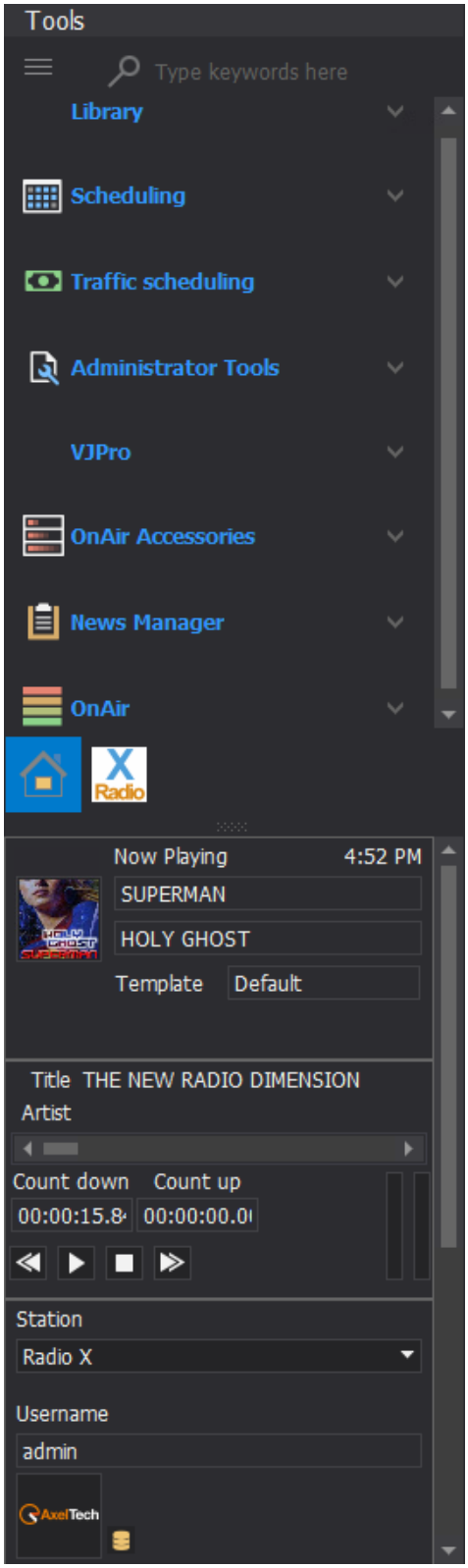
The work area starts with a default aspect, that is the one shown in this user guide, but you can change it any time according to your needs by going to *View→Aspect→Skin* where you will find the list of all the available skin presets. Select one of the skins to apply it in realt time. Moreover, according to the skin you selected, you can also choose among a different set of colors that you can choose from *View→Aspect→Skin Palettes*.

3.1 USER ACCESS

Double click XRadio icon on the desktop to access the program: select the Radio Station (if you installed more than one XRadio Server instance in your system), insert username and password (default user is ADMIN, no password) and click OK to confirm.

When Xradio is already open, you can change User any time by selecting *File→Disconnect* from the Menu bar: Xradio instance will close, and you will be asked to insert username and password again.

3.2 TOOLS MENU



The main items that appear in the Tools menu are:

Library: it is the collection of all the audio categories composing the Radio database, that appears on the main area of the window.
Scheduling: opens the tool for the Schedule management.
Traffic scheduling: opens the tools to manage the Traffic data view and export.
Administrator Tools: collects all the tools related to the administrative management of XRadio system.
VJPro: runs Axel Technology's VjPro application, if it is installed on the machine.
OnAir Accessories: allows you to access the OnAir settings and the History Log.
News Manager: opens the tool for the creation and management of News Bulletins.
OnAir: shows the link to run the OnAir playout. More links can be added, according the different types of OnAir you will manage (emergency, edit, test…).

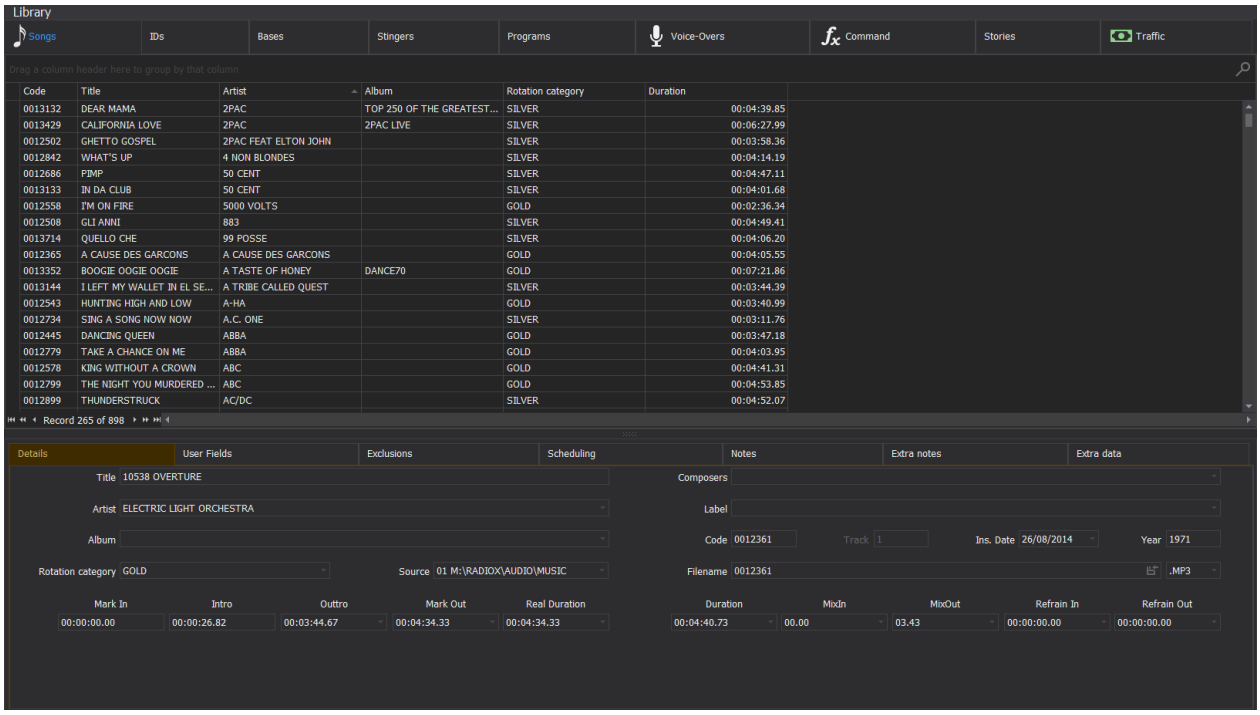
In the section under the Tools menu, the *Now playing* box is showing the item that is currently played by the main OnAir playout, while the *Template* box shows which scheduling template is currently in use.

Under the *Now playing* box, a small player allows you to play the item currently selected in the Library. The output used for the playout is the one you have set for the Internal Editor in the Audio Card configuration.

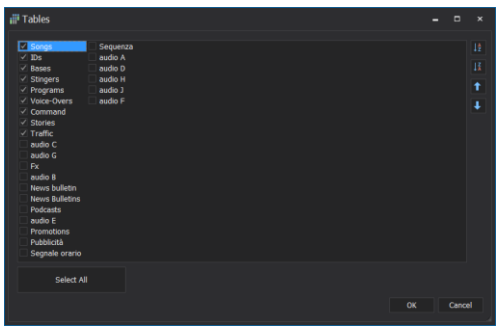
In the *Station* box you have the info related to the current Radio station (*XRadio* can manage more than one Radio station in the same installation), the logged User and the current SQL Server string (point the mouse on the icon next to the logo).

If you are managing more than one Radio station, you can use the *Station* menu to switch from one Radio station to another by selecting it in the drop-down menu: this action will close the current Xradio instance and you will be asked again to insert username and password to run the new instance.

3.3 LIBRARY



When you open XRadio, the Library starts by showing the Songs table. If you want to change the audio category to work on, click on another tab on top of the Library window.
If you want to change the display order of the tables, you can drag&drop a table in the new position by its tab.
If you want to add or remove a table from the Library, select *Tables* from the *Options* menu on the top left of the main window, and a selection box will appear



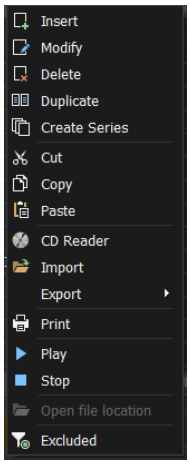
You can use the options on the right to sort the items alphabetically, or to move them individually using the arrow buttons. The sorting order set in this list will also affect the display order of the tables in the Library.

Select the tables you want to show and unselect the ones you want to hide, then click *OK* to confirm.

Each table starts with a default view, but you can modify it by moving, adding, or removing the available fields:

- To change the position of a field, drag&drop its column header into the new position.
- To remove a field from the view, drag&drop its column header on the top part of the window, until you see the mouse pointer turning into a big X.
- To add a field into the current view, right click on a column header and select *Column chooser* from the context menu; double click or drag&drop an item from the *Customization* menu to add it into the table.
- To save the current View, select *Save→Save as…* from the *View* menu on the top left of the main window, assign a description to the new View and click OK to confirm.
- To load a View you previously saved, select *Load* from the *View* menu, and click on the View you want to load.

XRadio will automatically save the View of each table when you close the program, so that you will start with the last loaded View when you will open XRadio the next time.



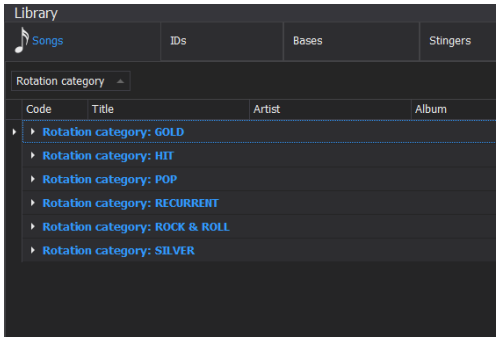
As already mentioned, in the upper part of the window there is the *Toolbar* with the main functions associated to the selected table. Alternatively, you can invoke the same functions when you right-click on an item into the table and open the context menu.

3.3.A How To Manage Data Into A Table

ORDER

You can order a table by each field: click once on the column header of a field to sort it in *ascending* order (A-Z); click a second time on the same column header to sort the field in *descending* order (Z-A).
Once you ordered the table by a field, you can set a sub-order with a second field. For example, in the *Songs* table click once on the header of *Rotation category*, then right click on the header of *Artist* and choose Sort Ascending: with this configuration, the Songs table is ordered by *Rotation category*, and all the songs with the same Rotation category are ordered by *Artist*.

You can also group the table data in sub-tables by a field: drag the column header of a field into the empty space above, and the table will change aspect by grouping its data according to the selected field. For example, if you group the table by *Rotation category*, the aspect will be the following:



Click the arrow next to each item to expand the content of the sub-table that can be ordered with same options as the full table.

When you want to go back to the default view, move back the gouping field with drag&drop into the headers row, or move it on top of the window to remove it from the current view.

SEARCH

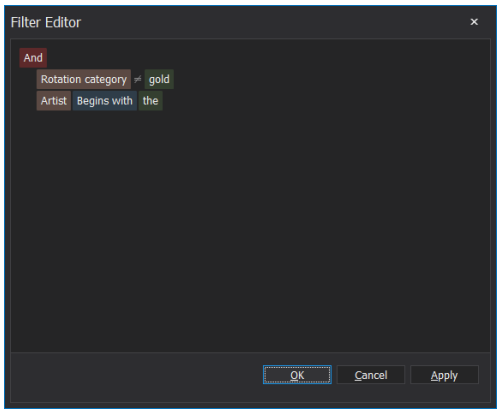
There are different ways to search an item into a table:

1) If you want to move into the table data, you can scroll up/down the table using the vertical scroll bar on the right or use the navigation bar at the bottom left of the table that allows you to move one line forward or backward, one page forward or backward, at the beginning or at the end of the table data. The navigation bar also tells you what the currently selected line is.

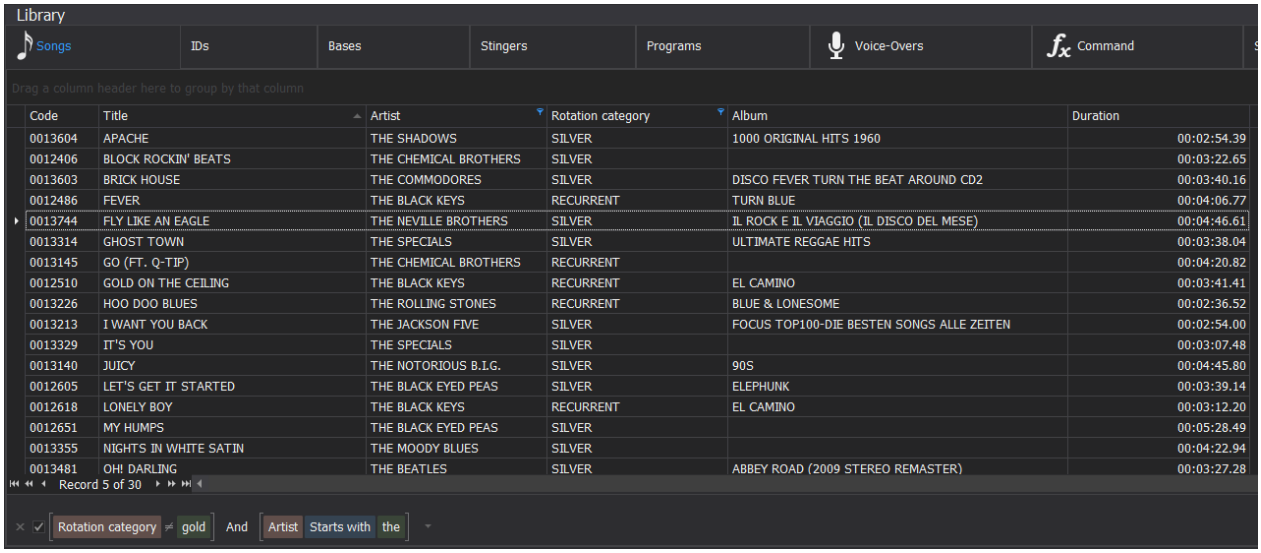
2)If you exactly know what the item you are looking for is, order the table by a field (eg: Title), then click into an item of that field and start typing the first characters of the item you are searching, and the software will automatically move on the item which starts with the characters you typed.

3) If you don't know the exact string, or you want to search all the items containing the same word, click the magnifying glass icon on the top right of the table and type the search string into the box: the program will filter the content of the table, showing you only the items containing the string into ANY of their fields. For example, if you type the string "IMAGINE" in the Songs table, the results will show you *IMAGINE* by JOHN LENNON, but also all the songs by *IMAGINE* DRAGONS. Click on the *x* next to the search string to remove the filter and show the full content of the table.

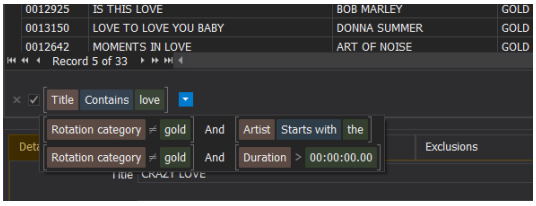
4) If you need to do a deep search to filter the content of a table, right click one of the column headers and select *Filter Editor* from the context menu: the *Filter Editor* window opens, where you can set one or more filtering rules and decide if AT LEAST one of them must be satisfied (*OR* condition), or ALL of them at the same time (*AND* condition). For example, if you want to search for all the songs which *Rotation Category* is different than "GOLD", and which *Artist* begins with "THE", the filter editor must be set in this way:



Click OK to confirm, and the result will be:



The set filter is shown at the bottom of the table. You can disable/enable the filter by unselecting/selecting the checkbox on its left. If you want to remove and hide the active filter, click the *x* on its left.



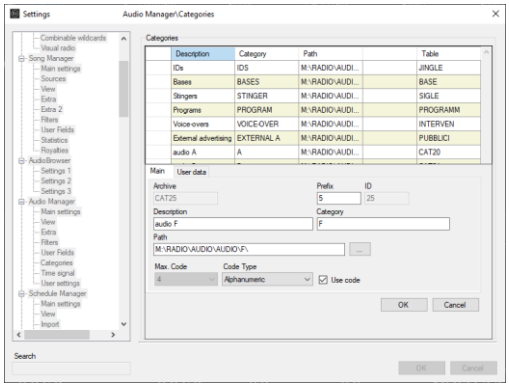
If you create more filters with the Filter Editor, the last created filters are temporary saved in a menu that you can display clicking the arrow on the right of the active filter at the bottom of the table.

If you want to remove a filter from the list, click on the *x* icon that appears on its right when you pass the mouse on it.

3.3.B HOW TO ADD/MODIFY/DELETE AUDIO AND DATA

XRadio automatically saves each audio file that you insert, import or record into the dedicated folder of the related audio table. Each audio table in the Library has one dedicated folder, apart for the Songs table that can manage different Sources (see *Songs* paragraph).
If you want to change the target folder of an audio table, you can go to *Options→Settings* from the Menu bar and select *Audio Manager\Categories* to display the table with all the available audio categories.

Double click on an item to open the edit mask:

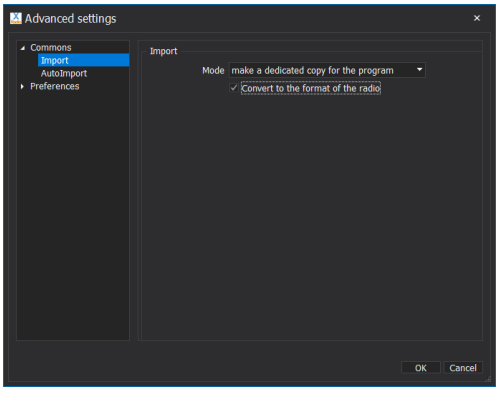


Here you can change the *Description* and the *Rotation Category* of the selected audio table, and the default audio *Path* for the new insertions.

Click OK to confirm the changes.

However, we suggest not making changes in the Categories section, unless strictly necessary.

Before proceding with the insertion and recording audio in your new XRadio system, you must choose the import mode you will use for the audio files: from the Menu bar, go to *Options→Advanced Settings* and select *Commons→Import* from the left menu of the window that appears.



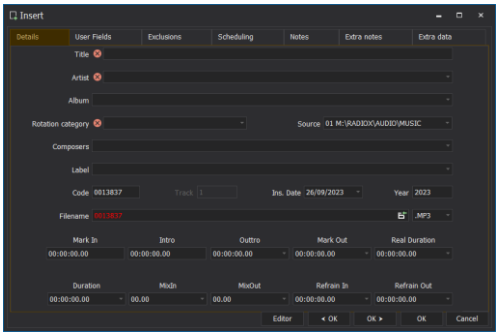
Mode: if you select "create a link to the audio file", when you import an audio into the Library the program saves the original path of the file; if you select "make a dedicated copy for the program" (default), when you import an audio the program makes a copy of the original file and saves it into the dedicated folder of the table you import the audio into. **We suggest using this mode**.

Convert to the format of the radio: when importing an audio file into the Library, the audio will be converted using the format previously set in the Audio Card configuration.

When you install XRadio, the default *File Extension* associated with the insertion, import and recording of new audio files into the Library is **.MP3**, but you can change it going to *Options→Settings* from the Menu bar and selecting *File Extension* from *Common\Main Settings*.

INSERT

You can insert a new item into a table, even if you still don't have the associated audio: click on the *Insert* icon on the toolbar, or right click in the middle of the table and select *Insert*. The Insert window appears:



The fields marked with an *x* icon are mandatory, which means that you must fill in at least those to save the data entered. The Filename is written in red because the audio file does not exist yet, until you will import or record it. Once you finished inserting all the data, you can click *OK* to confirm and save the new insertion which will appear in the table, or click *Cancel* if you don't want to save the insertion.

If you want to associate the audio file to the data, click *Editor* to open the **Recorder** and use the REC option if you want to record the audio, or the IMPORT options if you want to import an audio file (see paragraphs related to RECORDER). Once you recorded or imported the audio file, close the Recorder and click *OK* to confirm and save the new insertion.

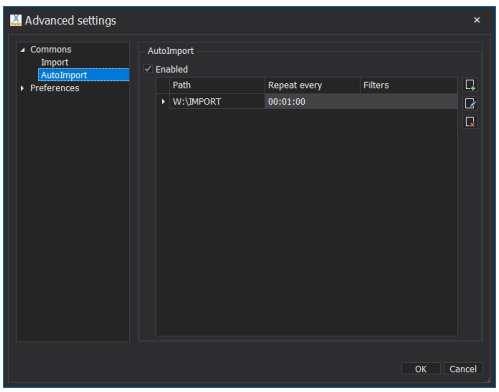
IMPORT

You can import new audio items into a table using different ways:

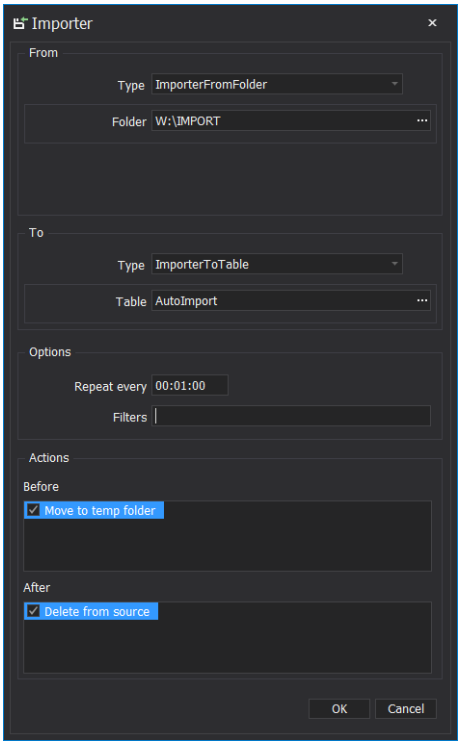
1) Open a table into the Library, then use Windows Explorer to open the folder with the audio files you want to import; select one or more audio files, then drag&drop them into the table.

2)  right click on an item of the table and select *Import* from the context menu, or select the *Import* icon from the toolbar, browse the folder where the files that you want to import are stored, select the file extension from the menu at the bottom to filter the content of the folder, select the audio files and click on *Open* to import them.

3) You can set one or more folders to automatic import audio files in specific tables. Go to *Options →Avanced settings* and select *Commons/AutoImport*



Select *Enable* to activate the autoimport function and click the *Insert* button to open the *Importer.*



In **From** section, select *ImporterFromFolder* from the *Type* menu and set the source folder.

In **To** section, select *ImporterToTable* from the *Type* menu and click the *[..]* to select the target Table.

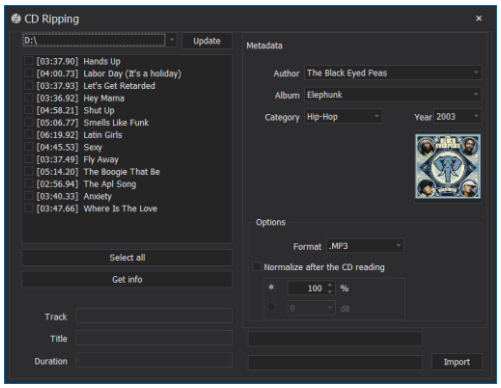
Set a value in *Repeat every* to determine how often to check the source folder to import new files.

Select *Move to temp folder* to improve the import phase.

If you are using the source folder as a temporary folder, select *Delete from source* to delete the audio files from the source folder once they have been imported in the target table.

When you import audio files with mp3 tags, they will be used to fill in some of the fields that match with the info. If you are importing a single audio, the editing mask will automatically open at the end of the import (see *Edit* paragraph).

4) If you want to import audio tracks from a **CD**, click the *CD Reader* icon on the Toolbar which will open the CD Ripping window



The window will show the list of audio tracks detected on the inserted CD, with their respective metadata that will be used to fill the audio info.

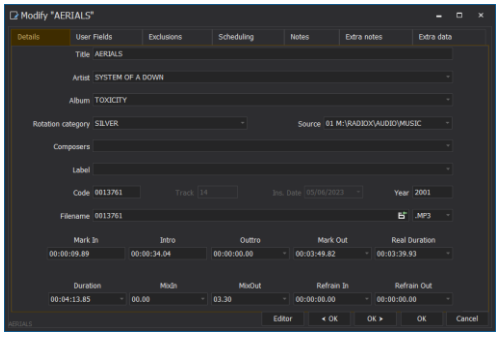
The metadata will be automatically download from an online database, so they will be available only if the PC has an Internet connection and the album is famous enough to have its data in the database.

If the sofware cannot download the metadata, the tracks will appear in the list with a generic name.

Select the tracks you want to import in the audio table, the audio format, the normalization value (optional) and click *Import* to start the CD grab. A progress bar will show the status of the process.

EDIT

Double click an item into a table, or right click on it and select *Modify* from the contect menu, or select it and click the *Modify* icon in the Toolbar: all of these actions will open the editing mask



Make all the changes you need and click *OK* to save and go back to the table view.

If you click on *<OK*, you will save the changes of the current item and will move to the previous item in the table without closing the editing mask.

If you click on *OK>*, you will save the changes of the current item and will move to the next item in the table without closing the editing mask.

You can also edit more than one item at the same time, selecting them into the table using the **Ctrl** and **Shift** keys and opening the editing mask.
For example, if you want to assign the same *Rotation Category* to some songs, select all the related items into the Song table by keeping the *Ctrl* key pressed and clicking each of them, then click the *Modify* icon on the Toolbar and the editing mask will open showing you only the fields that can be changed. Write the value in the *Rotation Category* field and click *OK* to confirm the changes and go back to the table View.

DELETE

To delete an item from a table, select it and press *DEL* on the keyboard, or click the *Delete* button on the Toolbar, or right click on it and select Delete from the context menu.

Like for the editing, you can use the **Ctrl** and **Shift** keys to select more than one item and delete them all together.

NOTE: when you delete an item from an audio table, the software deletes the data only, while the related audio file remains in the associated path. Which means that, as you delete audio from the various tables, you will have more and more files not associated with any data, and therefore unusable in your system. If you want to search for and delete these "orphaned" files, you can use the "Audio Without Data" function available in Administrator Tools (see related paragraph).

3.3.C HOW TO EXPORT AUDIO AND DATA

You can select one or more items into an audio Table, right click on the selection and choose *Export* to copy/move the audio with its data. There are three different destinations you can export data to.

EXPORT TO A FOLDER

The audio files of selected items will be saved into the folder you will choose, assigning the *Description* or *Title – Artist* as the file name. The export will also generate an XML file containing all the metadata of the exported audio, it can be used to import the items together with the data in another XRadio system using the Import Wizard tool (see paragraph 8.7).

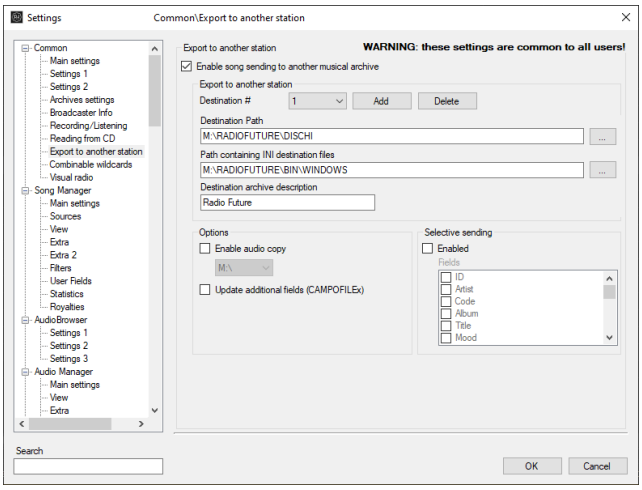
EXPORT TO A TABLE

The selected items will be exported to another audio Table of your system. You can decide whether to copy or move the data, leaving the audio files in their original position or making a copy of them in the destination folder.

EXPORT TO ANOTHER STATION

It works only with the Songs table. The selected items will be exported to another XRadio structure into the same network as the original one.

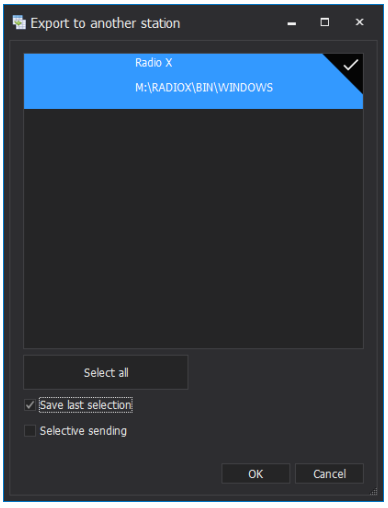
Prerequisite: for this type of export to work correctly, the target Radio must have the Songs table configured with at least two Sources, where the first Source is identical to that of the source Radio and the second Source is the main one in which the audio of the songs you insert directly is saved.
To configure the export to another XRadio structure, you must open the *Settings* from the *Options* menu, go to *Common\Export to another station* and select the *Enable song sending to another musical archive* parameter. Click on [*Add*] to enable the insertion mask:



In the *Destination Path*, set the path where the databases of the target Radio are stored.
Set the *Path containing INI destination files* of the Radio station that will receive the data, which is M:\RADIOFOLDER\BIN\WINDOWS (set the drive and the folder related to the target Radio).
Set a description for the target Radio.
Select *Enable audio copy* if you want to make a dedicated copy of the audio in the target Radio.
If you want to insert the parameters for another Radio, click again on [*Add*] and insert the new parameters.

The *Destination #* menu allows you to move from the parameters of one Radio to the others.

Once you have set these parameters, when you want to export any items from a table to another Radio Station in your network, right click on the selection and choose *Export→to station*:



Select the Radio Station(s) you want to export the data to and click [*OK*] to confirm.
If you enable *Save last selection*, the tool will automatically select the same Radio Stations every time you run it.

With this method, the export makes a copy of the selected items and will save them in the Songs table of the target Radio, while maintaining the same path and name as the audio file, which means there will be two items from two different Radio stations which have the same audio file in common.
If you have a structure with multiple Radios whose installation path differs only from the drive in which they are installed (for example: M:\RADIO, N:\RADIO, P:\RADIO...), then you must enable the parameter *Enable audio copy* and select the drive letter of the target Radio from the related menu.

3.3.D SONGS

AUDIO SOURCES

As mentioned in the previous paragraph, each audio table has a destination folder, while the Songs table can manage multiple folders in which to save its audio data. When you install XRadio, the default folder where the audio of the songs is saved is M:\RADIOX\AUDIO\MUSIC.
Usually, you do not need to add another folder, but it can be useful, for example, when you have reached a large quantity of songs (over 5000, to give a number) and you want to lighten the load on OnAir playout which becomes slower in opening the MUSIC folder and searching for the song to broadcast.

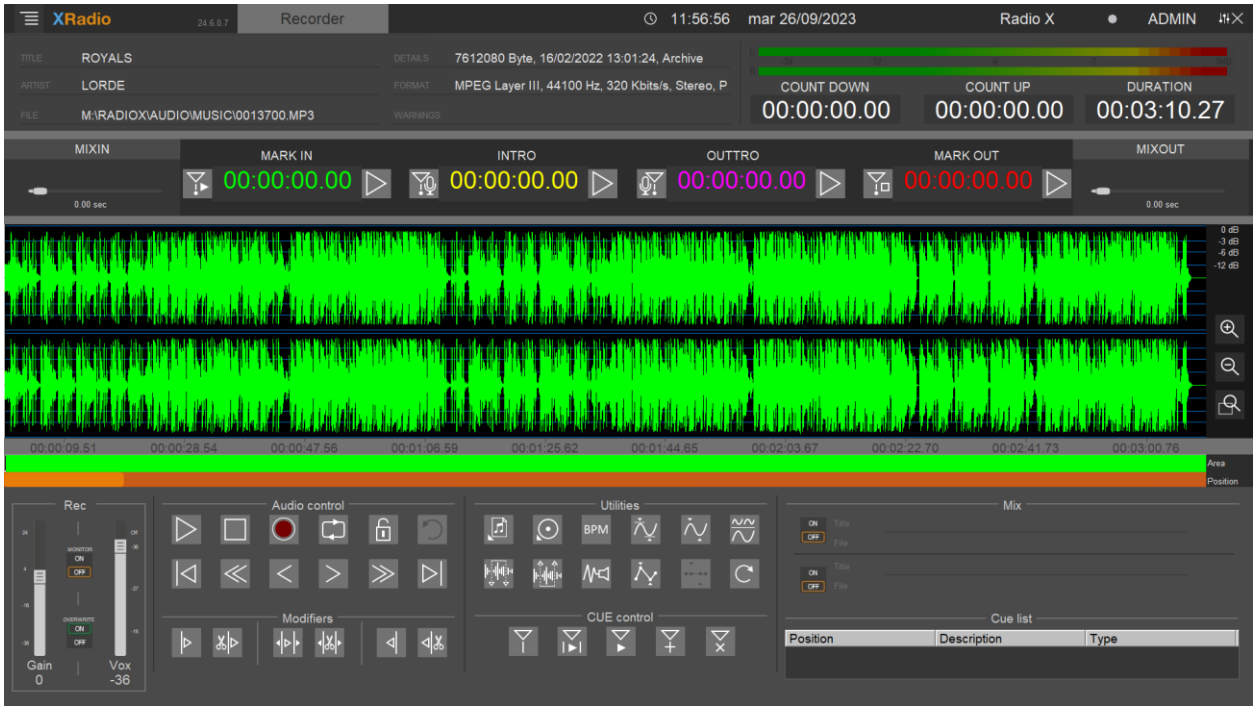
To add a new folder for the songs, you must go to *Options→Settings* from the Menu bar and select Song Manager\Sources.

- Click *Add* to open the insertion mask and set the new folder in the Path field.
- Select *Enabled* to be able to use the new source in the *Songs* table.
- In the *Default Source* menu, you must select the new Source to start saving the new songs in the new folder.

You can see the folder associated with each song in the *Source* field of the *Details* tab, and you can add the *Source* column to the Songs table view with the Column Chooser.

INSERT

To insert a new song in the Songs table, use one of the import methods described in the previous chapter.
Once you imported the audio, double click the item to open the editing mask, then click *Editor* to open the Recorder.



The upper part of the window shows the information of the audio file, while the lower part collects almost all the usable functions, and the central part shows the functions of the marking points and the audio waveform.
You can double click on the waveform to try the different display formats and choose the one you prefer, the Recorder will remember the last format selected for the next time you open it.

First, you can set the marking points that the OnAir playout will use when playing the song:

MARK IN: point in the audio from which OnAir playout will start playing the song. The audio part that is before this marking point will not be played.

INTRO: point in the audio where the initial instrumental part ends and the singer starts to sing.

OUTTRO: point in the audio where the singer stops singing and the instrumental tail begins.

MARK OUT: marking point where OnAir playout begins to fade the audio, mixing it with the next one in the playlist.

MIXIN: sets the fade in ramp which will start from the MARK IN point.

MIXOUT: sets the fade out ramp which will start from the MARK OUT point

All the marking points and the mix values are graphically represented with some lines that has the same color as the markers: green for the MARK IN, yellow for the INTRO, purple for the OUTTRO and red for the MARK IN; the MIX IN / MIX OUT curves are white.

To set the MARK IN, click where you want on the waveform to place the marker, then click the related button to set the value. Do the same for the other marking points.
To set the marking points with maximum precision, you can help yourself with the zoom functions on the right side of the waveform and use the inner arrow buttons that you find in the *Audio control* section to move the marker 0.03 seconds forward or afterward, while listening to the audio frame.

Hint: you can use the spacebar to play the audio: one tap will start the playout of the audio from the current position of the marker, while a second tap will stop the playout by placing the marker back to the starting position.

You can listen to a preview of each marking point by clicking on the related PLAY button. For example, if you click to the PLAY button of the MARK OUT point, you will listen to the audio starting one second before the MARK OUT point and fading according to the MIXOUT value set.

Hint: place the mouse on the second *File* row of the *Mix* section until the pointer turns into a green arrow, then click to open a compact Library browser. Select the *IDs* table and double click on an item to select it in order to load it in the *Mix* section, then set the switch next to it to *ON*. This operation associates a sample audio with the MARK OUT preview; this way it is possible to have a preview of the final result of how the end of the song will mix with the next audio in the playlist.
You can do the same operations for the MARK IN preview using the first *File* row in the *Mix* section.

AUDIO EDITING



If you want to modify the audio file, you can use the options in the *Modifiers* section to cut the audio file on the left side or on the right side of the cursor, or you can select a portion of the waveform with drag&drop and use the option to cut the selection.
For any kind of cut, you have the preview options to listen to the audio next to the marker before you will do the cut operation



If you made a mistake in cutting the audio, you can use the UNDO function to cancel the last action.
ATTENTION: the UNDO function can only delete the last action, it cannot go further back



Also, in the Recorder you can use other two features that allows you to adjust the audio level of the imported file, that are *Normalize* and *Change level*.

Anyway, the Recorder is mainly used to set the marking points and record or import an audio file. Its basic audio editing features are available in any third-party audio editor, such as Adobe Audition, WaveLab or Sound Forge, that is why we usually suggest to use one of those editors to work on the audio file.

You can install a third-party audio editor on the PC, then open the Recorder setup by clicking on the button on the top right corner, select the *Settings 2* page and, in Editing application, use the […] button to browse and select the .exe file which runs the editor. Then, set the *Command line for editing application* by clicking the *Def* button next to it, so that the *%nomefile%* string appears.
Click *OK* to save changes.



After you have set the parameters above, if you click on the *Editing* button the Recorder will open the external audio editor and open the audio file in it, so that you can use all the advanced features to modify the audio. Once you finish with the operations, save the changes and close the audio editor to go back to the Recorder window, and the waveform will update according to the changes done.

Once you finished working with the Recorder, close it with the *X* button on the top right to go back to the editing mask. The values of the marking points and the mix will be automatically reported in the related fields in the *Details* tab.

DATA SECTIONS

The **Details** tab collects all the default fields you are provided with when you install XRadio system, while in the **User Fields** tab the user can add up to 20 more customizable fields: for example, you can add a field where you can set the nationality of the song, or the gender of the singer, or a subcategory, and so on (see the related paragraphs). These fields can be used to better categorize the songs data and can be exploited by the Digiware advanced music scheduler for a deeper selection when generating the schedule.
The *SubGenre* field is the only exception, since this info can be also used in the selection rules for the *Rolling Clocks* (see Schedule chapter).

In the **Exclusions** tab you can decide which hours of the day, days of the week and months of the year you want to exclude the song from the OnAir automatic music selection by category (see Scheduling chapter).
If you set the *Excluded* parameter, you will completely exclude the song from the automatic music selection by category, and its data will not be shown in the Songs table, unless you will disable the *Excluded* filter by clicking its icon on the Toolbar.

In the **Scheduling** tab there are the additional scheduling parameters that you may use with Digiware, apart for the *BPM* (Beats Per Minute) that can be used in the *Rolling Clocks* too.
Click the button with the double green arrow to automaticallly calculate the BPM of the song.

In the lower part, a grid shows the information of the last four broadcast passages of the song. Place your mouse over one of the pie charts to see the precise date and time of transmission.

In the **Notes** tab you find the general info of the song. In the free space under the info, you can write additional information that can be shown in the OnAir interface (see OnAir chapter)

In the **Extra data** tab, you can associate an image file to the song. The selected image will appear next to the song in the OnAir playlist.
Click the […] icon or the box on the right to browse your sources and create a link to an image file in a specific path or click the arrow icon to automatically search and download an image from Internet, according to the Title and Artist of the song.

3.3.E IDs, Programs And Other Audio Tables

IMPORT

The import methods for the other audio tables are the same as the Songs. The editing mask is quite the same as the one of the Songs table, they differ by some parameters, that we are going to explain.

DETAILS tab

Loop: if you enable this parameter, when the OnAir will play the audio it will be repeated continuously until the operator on the air will manually stop it or skip it. Usually it is set for the items belonging to the *Bases* table, in this way you can continuously play a backing track for the needed time, even if the related audio file is short

Voice track: if you enable this parameter, the audio will behave like a voice-over (see *SPECIAL CATEGORIES* paragraph)

Dynamic Duration: this parameter is used to manage audio files that are overwritten one or more times a day without updating their duration in the table (example: news broadcasts automatically downloaded from the internet). By setting this parameter, the OnAir playout will not consider the duration saved into the table, but directly reads the duration from the audio file when it is inserted in the playlist.
Usually, when you set an audio with *Dynamic Duration*, you don't have to set the Mark Out point because the duration is variable.
When you enable this parameter, the software adds the #?# string at the end of the audio *Description* when it is displayed in the table list and in the OnAir playlist

Dynamic MarkOut: this parameter is associated to the *Dynamic duration*. You can use this parameter if the audio has a final part with a fixed duration, which you do not want to broadcast (eg: final greetings with sponsorship). In this case, when you insert the audio in the table for the first time, you set the Mark Out point and enable both *Dynamic Duration* and *Dynamic MarkOut*. In this way the OnAir will calculate the duration between the Mark Out point and the end of the audio from the data saved in the table and will subtract it every time from the updated duration of the audio loaded in the playlist.

EXTRA DATA tab

Implicit commands: It is possible to associate, to each audio, scripts that allow OnAir to automatically execute internal commands (towards itself) or external commands (towards other OnAir playouts or other devices) when broadcasting this audio. These scripts can be executed at the beginning, middle and end of the audio playout. See the *Commands and Scripts* section for more info.

TAG Composition: when you have, in one file, an audio montage composed of multiple items, you can use TAG Composition to tell the playout which audio are contained in the montage, so that their info will be written into the transmission logs and will be taken into consideration for future schedules.

Voice Overs: usually used with long audio files. If you add one or more items to the *List*, taking them from any audio table, during the playout the OnAir will automatically lower the audio level to play one of the items in the list over the main item, in a rotation. The distance between one repetition and the other is given by the *Repeat time* parameter.

AUDIO EDITING

Like for the Songs, the Recorder is the main tool to manage the audio. The functions are exactly the same. In the following part of this chapter, we will focus on the main functions used to manage the audio of a generic category

IMPORT

In addition to the import methods already explained previously, it is also possible to import an audio file via the Recorder, using two different methods:



1- You can import a new audio file, by overwriting the existing one. In this case the import will replace the original audio file with the new one. Apart for the file type, this import method will tend to maintain the audio format of the imported file.



2- You can insert another audio file into the existing one. In this case the import will add the new file in the position currently indicated by the cursor within the waveform, updating the duration of the resulting file. This import method always convert the imported audio to the format set in the Audio Card configuration.
ATTENTION: Merging two audio files that have different formats generates a corrupted audio that will not be played correctly by OnAir



3- You can import an audio track from a CD using the Reading from CD tool

AUDIO RECORDING

If you want to record an audio with the Recorder:

- Connect an output of your mixer to the input of the sound card you have chosen to use for the internal editor in the Audio Card configuration.
- Set the *MONITOR* selector to *ON* in order to have a preview of the ingested audio before starting recording and adjust its level by the mixer or using the *GAIN* control in the Recorder.
- When you are ready, click the *REC* button to activate the recording that automatically starts when the audio level exceeds the threshold set in the *VOX* control (default is -36dB). If you want to start the recording as soon as you press the *REC* button, set the *VOX* control to *OFF.*
- Click the *STOP* button when you want to stop the recording.



If another audio is already loaded in the Recorder, and the OVERWRITE selector is set to ON (default), when you click the REC button it will be deleted and overwritten by the new recording. If you want to keep a part of the previous audio, set the OVERWRITE selector to OFF and place the marker in the waveform AFTER the audio part that you want to keep, in this way the new recording will overwrite only the part after the marker.

4. SPECIAL CATEGORIES

There are three tables in the Library that manage three special categories: **VOICE OVERS**, **COMMANDS** and **TRAFFIC**. The items of these tables have functions and behaviors that differ from those of the other tables. Plus, the **TIME SIGNAL** category is managed in a completely different way than the other audio categories.

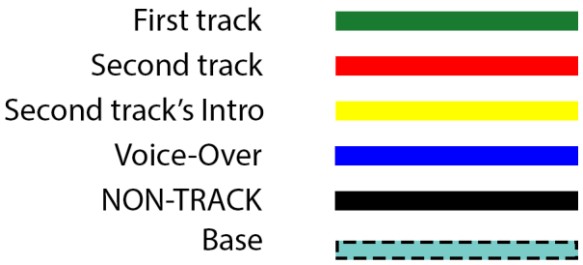
4.1 VOICE OVERS

A *Voice Over* can play between two other audio, overlapping to them. With this method, for example, you can pre-record the voice of a speaker, schedule it as a Voice Over and play it on the air, thus simulating a live speech over the intro of a song.

The behavior of Voice Overs on the air depends on several parameters, which must be set on the *Voice-Overs* section in the ON-AIR Setup.

Starting now, for the rest of the paragraph:
- we will call TRACK any item of the playlist that is SONG, ID, BASE, STINGER, PROGRAM, AUDIO of any of the available categories;
- we will call NON-TRACK any item of the playlist that is TIME SIGNAL, TRAFFIC (the final ID is considered a TRACK), NEWS (the ending stinger is considered a TRACK);
- we will call AUTOMATIC ADVERTISING the Traffic not in the playlist that is automatically broadcasted by OnAir.

How to read charts:



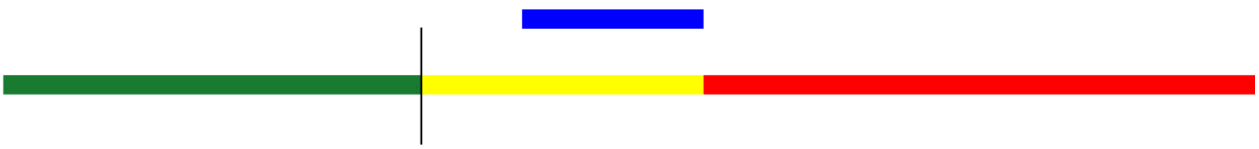
There are four different types of Voice-Overs, each one with a different behavior:

VOICE-OVER TYPE 0 – END ALWAYS ON THE INTRO

- When the duration of the Voice-Over is higher than the INTRO of the second track, it starts over the end of the first track, so to finish exactly at the end of the intro



- When the duration of the Voice-Over is lower than the INTRO of the second track, the Voice-Over starts on the second track's intro, so to finish exactly at the end of the intro



- When the INTRO of the second track is 0, the Voice-Over is played completely on the tail of the first track, so to finish exactly at the end of the track



- When the Voice-Over is between a TRACK and a NON-TRACK, the Voice-Over is played completely on the tail of the first track, so to finish at the end of the track



When the Voice-Over is between a NON-TRACK and a TRACK, the Voice-Over is played completely on the second track (if its duration is higher than the intro, the Voice-Over will cover the vocals)



ATTENTION: if the AUTOMATIC ADVERTISING is ready at the end of the first track, the Voice-Over could finish over the advertising. In order to avoid this behavior, you can enable the parameter called No transmission of advertisement after a Voice-over from the OnAir Setup. In this way the automatic advertising does not start if a Voice Over is playing, thus delaying its transmission. Alternatively, you can place the advertising clusters in the same schedule together with the Voice-Overs, thus avoiding the automatic playout of the advertisement.

The main drawback of this Voice-Over type is that, if it is very long, the Voice-Over itself covers a good part of the first track. To avoid this, you can use the Voice-Over Type 1

VOICE-OVER TYPE 1 – WITH BASE OR SILENCE BASE

- When the duration of the Voice-Over is higher than the INTRO of the second track, the first track ends and the Voice-Over starts on a base; when a duration equal to the intro of the second track is left to the end of the Voice Over, the base stops and the second track starts; the Voice Over ends exactly at the end of the intro

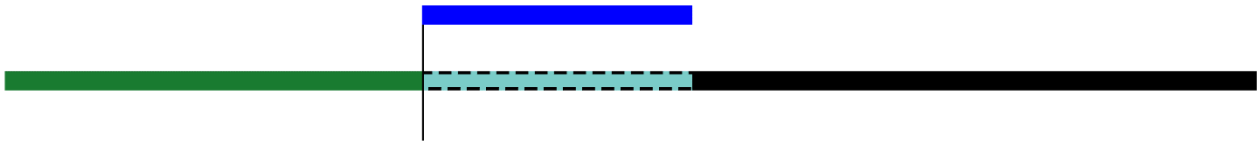


- If the length of the Voice-Over is lower than the second track's intro, the base is not used and the Voice-Over starts together with the second track

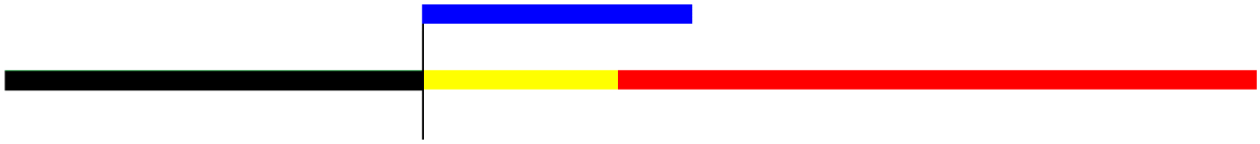


If the INTRO of the second track is 0, the Voice-Over is played completely on the base

- If the Voice-Over is between a track and a NON-TRACK, the Voice-Over is played completely on the base



- If the Voice-Over is between a NON-TRACK and a track, the Voice-Over is played completely on the track, and in this case it could cover the vocals



ATTENTION: if the Voice-Over is between two tracks and the AUTOMATIC ADVERTISING is ready at the end of the first track, the advertising will play and the Voice-Over will start at the end of the cluster. You can place the advertising clusters in the schedule together with the Voice-Overs, thus avoiding the automatic playout of the advertisement.

Voice-over Bases
If you create your schedules with DjPro's Schedule Manager, you must specify, in the Schedule Manager Setup, Settings 1, a list of bases that you want to use for the Voice-Overs, choosing them from the Bases category. The generated list will be available in a drop-down menu when you will insert a type 1 Voice-Over into the schedule.

If you create your schedules with Digiware, all the items of the Bases category will be available in a drop-down menu when you will insert a type 1 Voice-Over.

The base that you choose for a Voice-Over in a schedule must be longer than the necessary duration, as the base will not play on a loop.

If the base is not specified, or points to a non-existent file, ON-AIR does not play the Voice-Over properly.

VOICE-OVER TYPE 2 – ALWAYS BETWEEN TWO SONGS

- It is quite similar to Voice-Over Type 0, except when its duration is lower than the INTRO of the second track, in this case the Voice-Over starts together with the second track

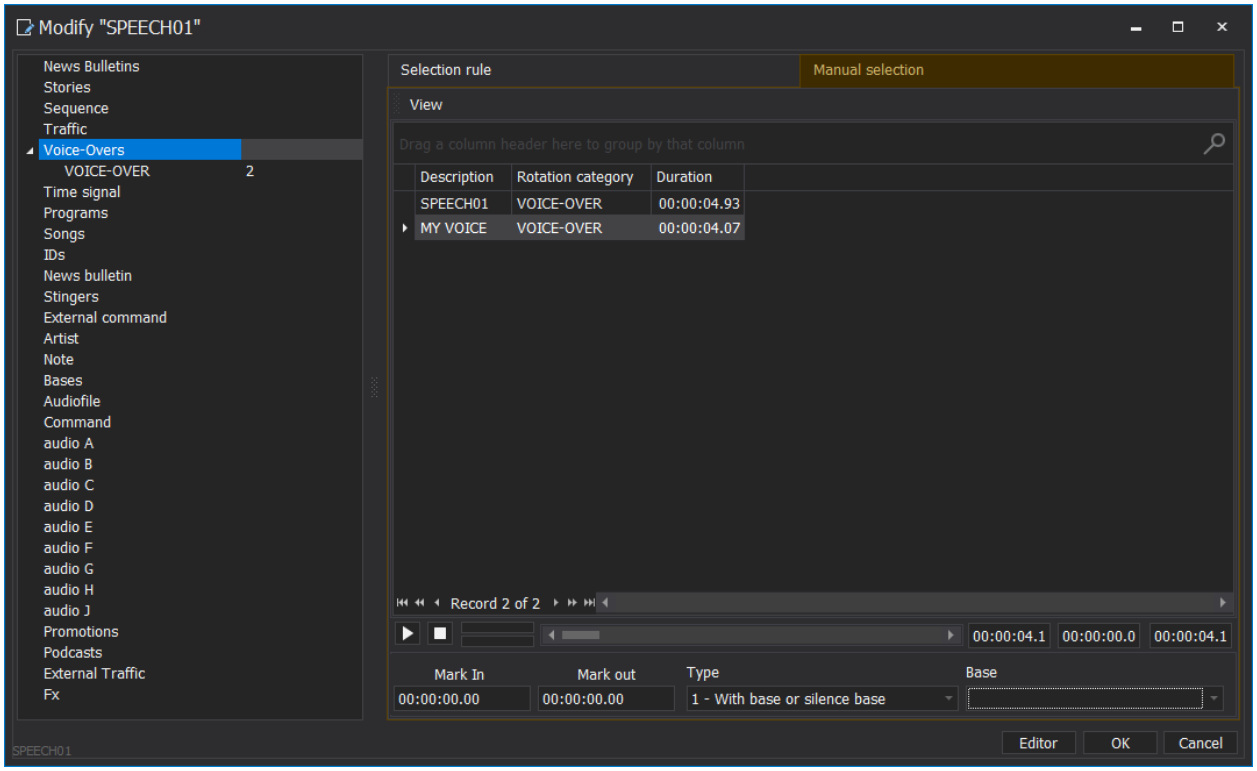


VOICE-OVER TYPE 3 – VOICE TRACK

The Voice Tracks are Voice Overs whose start point, and end point are defined by the user in the scheduling process with the DjMTrack utility, or during their recording with a "Voice Track OnAir" (see OnAir chapter).
If you schedule a Voice Track whose start point and end point have not been set, it will be played by OnAir as a Voice-Over type 1, that is, all or part of the Voice Track will play on the base that you have chosen in the scheduling process.

SCHEDULING A VOICE-OVER

Once you have set the parameters on the *Voice-Overs* section in the ON-AIR Setup, they are valid for all the Voice-Overs that you will schedule and play on the air.
If you do not enable the parameter called *Voice-over type from DBF*, all the scheduled Voice-Overs will be of the type that is set into the parameter called *Voice-over type*; otherwise, in **Schedule Manager** and **Digiware** you can set, for each Voice-Over, a different type and, in the case of Voice-Over type 1 and 3, a different base.
The mask for the schedule of a Voice-Over looks like the following picture:



You can select the Voice-Over type from the *Type* menu and, eventually, associate a base from the *Voice-over Base* menu.
To specify the list of the available bases for the Voice-Overs, you must go to *Options →Settings* from the Menu bar and select *Schedule Manager\Main Settings*.

4.1.A WILDCARDS

In XRadio system, we call *Wildcards* those "voice-over" audio that announce the year, decade or artist of the song that is about to play, always ending on the intro of the song itself.

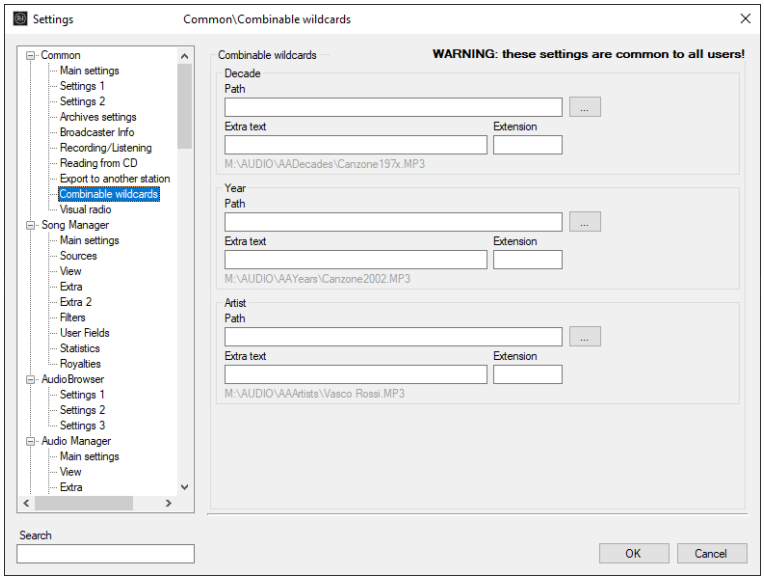
These audio files automatically match the song according to data entered in the YEAR and ARTIST fields of the Songs tab in the Library.

It is possible to choose to set the wildcards in two alternative ways: **fixed folders** or **variable folders**.

WILDCARDS IN FIXED FOLDERS

First of all, in M:\RADIO\AUDIO\ create three different folders which will contain the audio files for the wildcards. We suggest calling them
AAYears
AADecades
AAArtists

Go to *Option →Settings* in the Menu bar and select *Common\Combinable wildcards* from the menu on the left:



In the *Path* parameters you must indicate the path of the folders that you create before and will contain the audio wildcards.

In the *Extension* parameters you must indicate the extension of the files used for the wildcards (eg: *.MP3*).

In the *Extra* parameters you can choose a prefix for the file names (eg: *Song*)

Click on OK to save the changes.

Record the audio files and name them as follows:

- For the YEARS, ***SongYYYY.ext*** (i.e., Song1999.mp3, Song2000.mp3, Song2001.mp3, and so on).
- For the DECADES ***SongYYYx.ext*** (i.e., Song197x.mp3, Song198x.mp3, Song199x.mp3, Song200x.mp3, and so on).

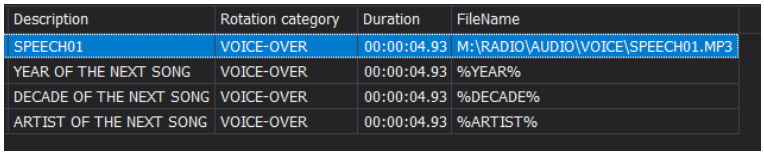
ATTENTION: *YEAR* and *DECADE* wildcards will work properly only if you have filled in the YEAR data of the songs in DjPro music archive (Song Manager).

- For the ARTISTS, use the artist's name as it is written in the *Songs* table (i.e. Vasco Rossi.mp3, Beatles.mp3, Bruce Springsteen.mp3, and so on).

ATTENTION: any errors in typing the artists name in Song Manager data will cause the wildcard to malfunction.

Now open the Library and select the *Voice-Overs* tab.
Insert a new voice-over and assign a description that makes the wildcard recognizable in Digiware schedules and in the OnAir playlist.
In FILE NAME field, set the string corresponding to the wildcard you want to use.
The strings are as follows:
YEAR = *%YEAR%*
DECADE = *%DECADE%*
ARTIST = *%ARTIST%*

Here's what the Voice-Over tab will look like:

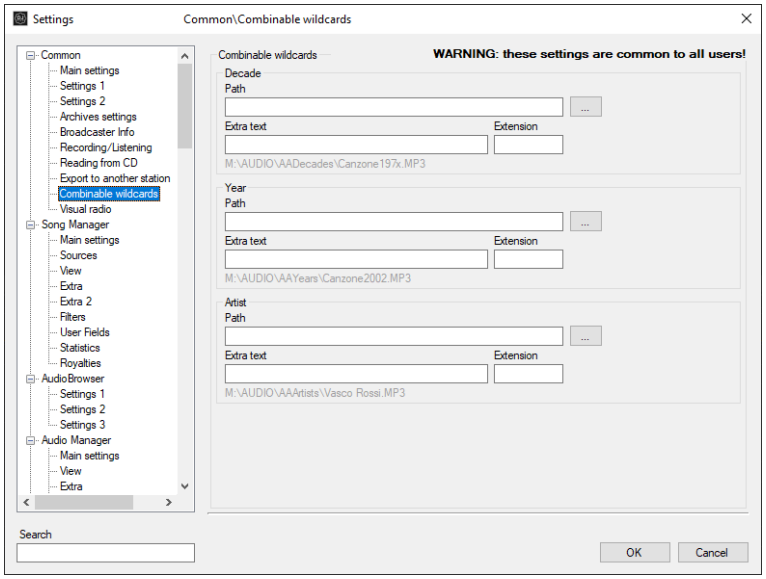


Description	Rotation category	Duration	FileName
SPEECH01	VOICE-OVER	00:00:04.93	M:\RADIO\AUDIO\VOICE\SPEECH01.MP3
YEAR OF THE NEXT SONG	VOICE-OVER	00:00:04.93	%YEAR%
DECADE OF THE NEXT SONG	VOICE-OVER	00:00:04.93	%DECADE%
ARTIST OF THE NEXT SONG	VOICE-OVER	00:00:04.93	%ARTIST%

WILDCARDS IN VARIABLE FOLDERS

In your system, you can use **EITHER** *WILDCARDS IN FIXED FOLDERS* **OR** *WILDCARDS IN VARIABLE FOLDERS*, not both.

If you already enabled the WILDCARDS IN FIXED FOLDERS, remove the parameters from the setup:



Select the *Voice-Over* tab in the Library and insert a new item. In *File Name*, enter a string following this syntax:

- Path of the folder containing the audio files (e.g., M:\AUDIO\YEARS\)
- Syntax of the wildcard, possibly preceded by a fixed syntax (e.g., A_%YEAR%)
- File extension (e.g., .mp3)

Here is the string that would result from our example:

M:\AUDIO\YEARS\A_%YEAR%.MP3

The possible wildcards are:

%YEAR% for the pairing of the year
%ARTIST% for the pairing of the artist
%DECADE% for the pairing of the decade

You can insert the newly created item before a song in Digiware schedule or in XRadio schedule, or manually insert it in OnAir playlist.

4.2 COMMANDS

In the *Commands* table you can can create and manage a wide range of commands that can be sent by OnAir through RS-232, TCP/IP, UDP, HTTP or GPIO and used to remotely command other programs or devices. The commands, like any item of the other audio categories, can be scheduled or manually inserted into OnAir playlist.

You can also manage some commands, called SCRIPTS, to make the OnAir itself (or a different OnAir that is running on another PC) execute specific actions.

To create a new command, open the *Commands* table in the Library, insert a new item, write a Description and, in the File Name, write the command string.

Example: if you want to create the command to set OnAir in manual mode, you must write, in the *Filename* field,

^^MANUAL

When OnAir will "play" this item from the playlist, it wil be set in MANUAL mode.

Please read the *Commands And Scripts* chapter to know how to write the command strings for each protocol and what are the methods of execution. You will find a list of the most used scripts.

MULTIPLE COMMANDS

It is possible to create a single string with more than one command, separated by the | (pipe) character. OnAir will execute the instructions in sequence, as set in the string.

For example, if you want to create a command that sets the OnAir in MANUAL mode and runs a batch file, the string will be:

^^MANUAL|^^SHELL(C:\TEST.BAT)

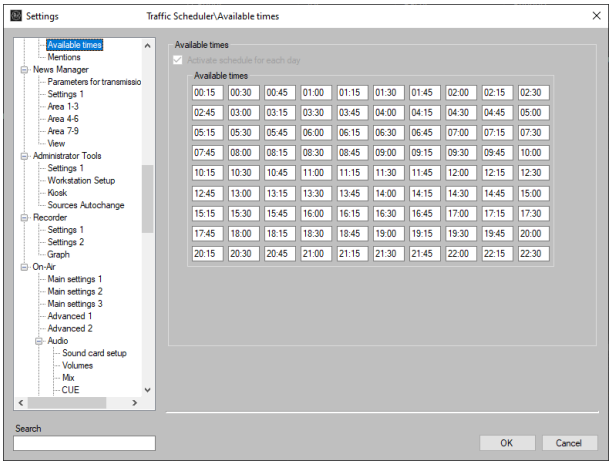
In this way, you can create command strings by mixing scripts with TCP/IP, UDP, HTTP, RS-232 commands.

4.3 TRAFFIC

The daily traffic schedule is generated based on the information entered in the *Traffic* table. Each item of the table corresponds to the scheduling of a commercial, so if the customer has more commercials you need to enter more items.
The schedule of a commercial is based on the selected days of the week, on the indicated time points and on the scheduling period set in its form. The available time points are fixed, but they can be customized. You can choose a miximum of 20 time points in a day for each scheduled commercial.
The order of a commercial in the advertising cluster can be changed by setting different values of priority (1=always at the beginning, 9=always at the end).
If you want the commercials to be ordered randomly into the cluster, enable the *Rotation* parameter that changes the position of the commercials having the same priority within the same advertising clusters in the scheduling.

HOW TO MANAGE THE TIME POINTS

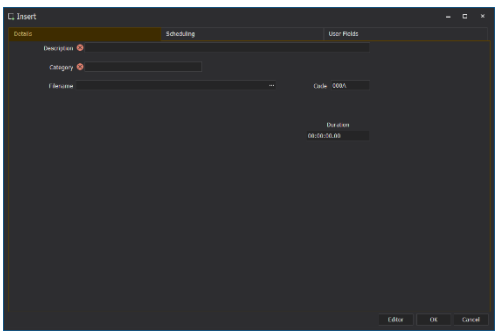
From the Menu bar, open *Options→Settings* and go to *Traffic Scheduler\Available Times*, where you will find a table with the available time points.



To change a time point, select it and write the new value.

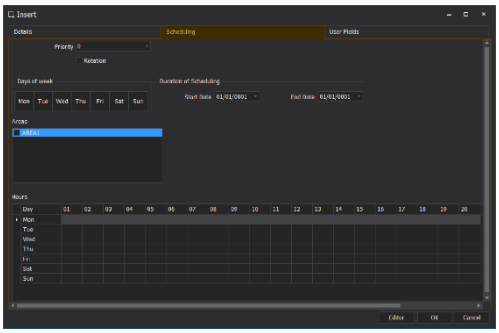
When you are finished with the changes, click OK to confirm.

HOW TO SCHEDULE A COMMERCIAL



Insert a new item in the Traffic table, write the name of the commercial in the Description field and insert the product *Category* (this parameter is very important to allow the program to warn you if you are scheduling two commecials of the same product category in the same time cluster).

- Write the file name, without extension, in the related field, it will be automatically created and saved in *M:\RADIOX\AUDIO\ADV* default path when you will import the original audio.
- Click *Editor* to open the Recorder and use an import function to select the original audio and import it. You don't need to set the marking points for the audio of a commercial, since it will be played entirely. Close the Recorder.



- In the *Scheduling* tab, click a day of the week to open a window with the available time points of the day, select the ones that you want and click OK to confirm. Do the same for all the other days of the week where you want to schedule the commercial.
- Select the scheduling period by setting the *Start Date* and the *End Date*.
- Select a *Priority* and the *Rotation* parameter, if you need it.
- Click *OK* to confirm the insertion.

The generation and export of the schedule made up of all the commercials inserted in the Traffic table is managed by the *Traffic scheduling* section (see related Chapter)

HOW TO PLAY A COMMERCIAL

The exported advertising schedule is automatically detected and read by OnAir at the start of the day.

- By default, when a cluster's scheduling time arrives, if both OnAir playout and Traffic panel are set to AUTOMATIC mode, OnAir OnAir will start the playout of the cluster at the end of the audio currently playing.

- If both OnAir and Traffic panel are set to MANUAL mode, it is up to the user to decide when to start the traffic cluster by pressing the related PLAY button which will only be enabled when the scheduled time arrives

- The user can also manually insert a cluster into the playlist by clicking on one of the [+] buttons, then on Traffic and choosing one of the time points from the list. With this method you can play any cluster at any time of the day

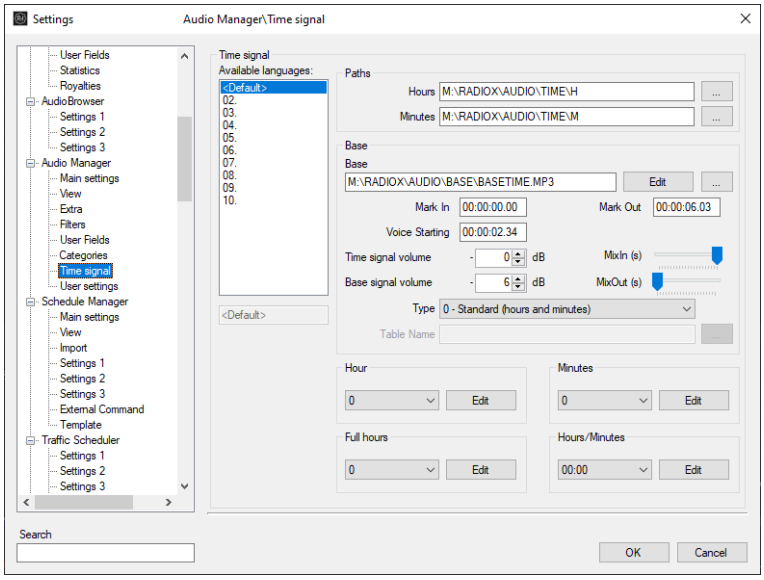
- In the same way, you can insert any time point in any Schedule (Clocks, Events, Sequences), together with other items. In this way you can create a time point with a sequence where you can decide what the OnAir must play before and after a cluster.

For example, in the Events Schedule, you can create the time point of 13:00 with a sequence like:
- HIT SONG
- TRAFFIC CLUSTER OF 13:00
- BREAKING NEWS
- WEATHER

In this way you know that the cluster of 13:00 will go on the air AFTER the HIT SONG and BEFORE the BREAKING NEWS, even if it will start with a delay of some minutes, because the song plays first according to the scheduled sequence.

4.4 TIME SIGNAL

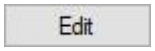
XRadio provides the *Time Signal* function that allows OnAir to play the exact time in any moment, by taking information from the PC clock.
To manage the settings of the Time Signal, click Options from the Menu bar, select *Settings* and go to *Audio Manager\Time Signal*



In the *Available languages* box you find the list of the different time signals. Under the box you can see and change the description of the selected time signal.

In the **Paths** section you must select the folders where OnAir will pick up the audio files of the hours and minutes to be broadcasted.





The **Base** box contains all the information dedicated to the background of the time signal. In the *Base* field you must enter the BASE FILE NAME with its path. With the proper button, you can select the audio file to be used as the base of the time signal directly from any DJPRO archive.

Press the *Edit* button to open the RECORDER and edit the audio of the base, listen to the playback or set *Mark In*, *Mark Out* and *Voice Starting*.

IN THE RECORDER:
- *MARK IN* indicates the point where to begin to play the base;
- *INTRO* (*Voice Starting*) indicates the point where to begin to play the audio of hours and minutes.
- *MARK OUT* indicates the point where the Base ends and mix with the next track.

MARK IN, INTRO and MARK OUT can be also modified directly from the configuration panel, without running the RECORDER.

You can set other parameters: *Time signal volume*, *Base signal volume* and *Mix*. For the *Time signal volume* and the *Base signal volume*, values can be set from 0 to 50.

The **Hour** menu contains the list of all possible hours (from 0 to 23). To record an hour, select it in the list and click the *Edit* button to open the RECORDER.

The **Minutes** field contains the list of all possible minutes (from 0 to 59). To record a minute, select it in the list and click the *Edit* button to open the RECORDER.

XRadio *Standard* mode plays the time signal as a composition of the audio file of the *Hour* followed by the audio file of the *Minutes*.
However, you can change the mode from the *Type* menu:
1 – Unique file (full hour): when OnAir plays the time signal at an exact time (eg 12:00, 13:00, le14.00 etc..), the used audio file will be the one recorded in **Full hours**. At all other times it continues to use the *Standard* mode.
2 - Unique file (Hour/Minutes): when OnAir plays the time signal, the used audio file will be the one recorded in **Hours/Minutes**. Since it would be necessary to record every minute of every hour to have the complete day (1440 files!), this mode is used when you have the time signal at fixed times in the day, so that you can only record the audio of the times around the schedule time points of the time signal.
3 – Unique File from Database: When OnAir plays the time signal, it will pick up the related audio file from the specified Table in the Library. In this case, the audio is played without the background base. Use the […] button to browse the Tables list and choose one. Like for the Type 2, you can record only the times that you need, and the *Description* of each item must be in *HH:MM* format (e.g:. *07:59*, *08:00*, *08:01*…).

Click *OK* to confirm the changes.

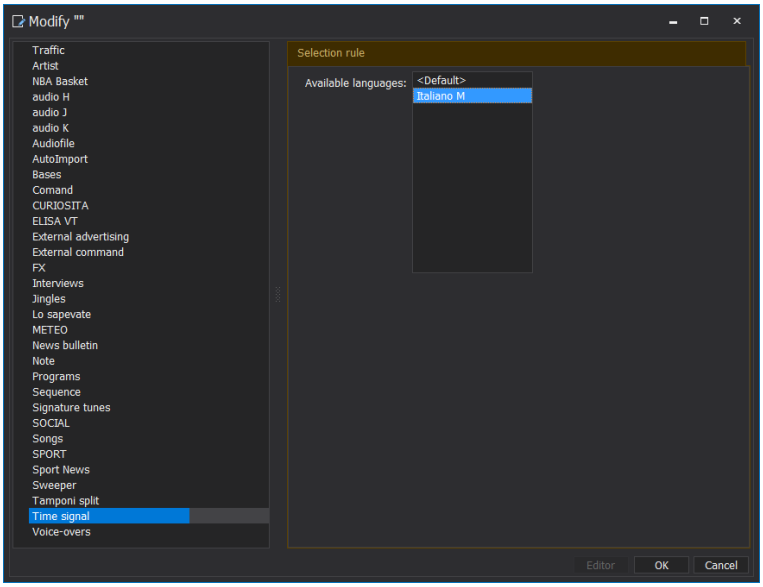
WARNING: OnAir must play the voice of the Time Signal in the space between the set *Intro* and *Mark Out* of the Base, so the duration of the voice must always be less than the duration between the Intro and Mark Out of the Base. If the voice lasts longer than the allowed space, OnAir does not play the Time Signal it correctly.
This rule does not apply to *Unique File from Database mode*, since it does not use the Base.

4.4.A How To Play The Time Signal

There are two ways to play the Time Signal:

- From the OnAir playout, click on a *[+]* button and select *Time Signal* to insert it manually into the playlist. The OnAir will play the *Default* Time Signal.

- If you want to schedule the Time Signal, you can insert in any schedule type and select which *language* to use:



5. SCHEDULING



The Scheduling area allows you to specify the schedule of the items that will be broadcast: the playlist of songs, IDs, traffic, etc. to transmit.

The work area is made up of several panels, each one can be moved, resized, and closed. You can use the *Panels* menu from the Menu bar to open/close each panel. You can also load some default layouts by selecting them from the *Presets* menu.
You can move the panels by snapping them to the various positions within the work area: try dragging one of them, and you will see some icons appear indicating the available snapping options; move the mouse on one of the icons and you will have a preview of how the panel will be positioned; release the mouse when you are on an icon to move the panel on the new position.
Alternatively, you can leave the panels floating, or move them and arrange them on a second screen.

The main panels are:

SCHEDULE
It contains the tables that manage the various types of schedules that are:
Sequence/Clock: you can select a list of items from the Library (songs, IDs and other audio categories) and schedule it on different days and different times, using the other schedule types.
Rolling Clock: weekly based schedule, made of several time points, each one containing a series of audio that are repeated cyclically. It is mainly used for composing the basic musical schedule of your Radio.
Events Schedule: weekly based schedule, it has the priority on the Rolling Clocks. Used to schedule all those events that have a fixed weekly time. For example, every Tuesday at 20:00, Time Signal followed by Breaking News
Manual Schedule: allows you to schedule, on a specific date at a specific time, events that do not need to be repeated.

SEQUENCE LIST
It shows the list of all the generated sequences, and for each of them you can see in which schedule, day and time they have been inserted.

LIBRARY

The tree menu shows a list of voices of all the available audio and command categories that you can insert into a schedule. Clicking one of the voices that corresponds to an audio table, it expands showing the list of all its Rotation Categories and the number of items associated to heach category.

In the *Selection rule* tab you can set the scheduling options of the item that you want to schedule by Rotation Category.

The *Manual selection* tab shows the content of the selected table, and you can choose a specific item to be inserted in the schedule.

CALENDAR

The structure of the schedule currently in use is displayed in the calendar, divided by days and hours, where it is possible to show/hide the different types of schedule.

CHART

It shows a pie chart of the items that make up the schedule currently selected in the SCHEDULE panel.

5.1 HOW TO SET A SCHEDULE

The first thing to know is that any change you make to the Schedule will be immediately active in the playout, as the OnAir reads the scheduling data every minute. In this way, **it is possible to modify a schedule up to one minute before its loading time in the playlist**.

There are several ways to manage the scheduling in XRadio. In the following part of this chapter, we will describe some of these methods.

5.1.A CREATE A CLOCK

- Select **Sequence/Clock** tab in the SCHEDULE panel and click the *[+]* button on the top right to create a new Clock.
- Write a name for the Clock (eg: MORNING MUSIC) and click *OK*.
- Click the *Insert* button to insert the first item into the new Clock.
- Select *Songs* from the tree menu and choose one of the *Rotation Categories*, then Click OK to confirm.
- Do the same operations to insert an ID by *Rotation Category.*
- Insert another song by changing the *Rotation Category*, then another ID, and so on until you have a small list of Songs and IDs scheduled by *Rotation Category*.

Since you scheduled songs and IDs by Rotation Category, the *Duration* field of each line shows the average Duration of the items belonging to the scheduled category. Similarly, the total duration shown at the bottom of the panel is calculated with the sum of the average durations, Likewise, the total duration shown in the lower part of the panel is calculated with the sum of the average durations, in order to give you an idea of how long this schedule can last

- Create some other Clocks, changing the sequence of songs and IDs. In our example, we create AFTERNOON MUSIC and EVENING MUSIC

When you schedule a song by *Rotation Category*, you can filter the song selection by also setting a speed range (*BPM*) and one or more musical *Genres*. In this way OnAir will respect all these filters when selecting the song to insert into the playlist.

5.1.B How To Schedule Rolling Clocks

- Select **Rolling Clock** tab in the SCHEDULE panel, choose *Sunday* in the days menu and *00:00* in the time points menu (you can create customized time points in the time menu by clicking the *[+]* button)
- Click *Insert* button, select SEQUENCE, MORNING MUSIC and click OK to insert it in the Rolling Clock. Alternatively, you can drag MORNING MUSIC from the SEQUENCE LIST panel directly into the SCHEDULE panel.

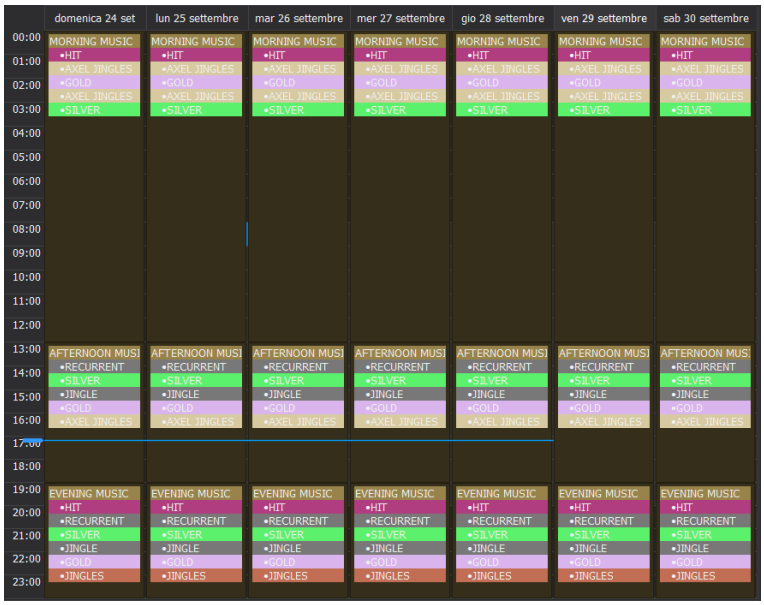
With these simple operations, you already created a very basic schedule of the whole week, since the OnAir playout will use the MORNING MUSIC sequence in a loop, from Sunday to Saturday, 24/7, to automatically choose and play songs and IDs by the Rotation Categories set into the sequence.
If you check the Calendar, you will see the MORNING MUSIC schedule placed at 00:00 of Sunday.

- Doing the same operations as for the MORNING MUSIC, insert AFTERNOON MUSIC at 13:00 and EVENING MUSIC at 19:00 of Sunday.

If you leave the schedule like this, OnAir will use MORNING MUSIC starting Sunday from 00:00 to 12:59, AFTERNOON MUSIC from 13:00 to 18:59 and EVENING MUSIC from 19:00 of Sunday up to 23:59 of Saturday.

- To copy MORNING MUSIC at 00:00 on the other days of the week, select again **Rolling Clock** tab in the SCHEDULE panel and click *Export* button to open the *Insert* mask.
- Set *13:00* in the Time field, *Rolling Clock* in the *Options* and select all the days from Monday to Saturday, then click OK to confirm.
- Do the same operations to copy AFTERNOON MUSIC every day at 13:00 and EVENING MUSIC every day at 19:00.

The Calendar will show the following:



The OnAir will use MORNING MUSIC from 00:00 to 12:59, AFTERNOON MUSIC from 13:00 to 18:59 and EVENING MUSIC from 19:00 to 23:59, every day of the week.

The example pattern we have just illustrated is quite simple; you can create much more complex patterns by inserting many more Clocks and time points per day into your weekly Rolling Clocks schedule.

5.1.C How To Schedule Recursive And One-Time Events

If you want to schedule an event, or a sequence of events, that must repeat every week in the same day at the same time, you must use the *Events Schedule*:

- Select **Events Schedule** tab in the SCHEDULE panel, choose *Monday* from the days menu and create *21:30* in the time points menu using the *[+]* button.
- Click *Insert* button, select *Programs*, *Manual selection*, choose an item (eg: BREAKING NEWS) and click *OK* to confirm.
- Click Insert button again, select *Time Signal* and click OK to confirm.

Every Monday at 21:30, OnAir will insert the BREAKING NEWS followed by the TIME SIGNAL on top of the playlist and will play them after the audio currently on the air.
Once OnAir has played the Time Signal, if there are no other events scheduled, it will keep on playing audio using the current Rolling Clock.

- Select **Sequence/Clock** tab in the SCHEDULE panel and click the [+] button on the top right to create a new Clock for your TOP 10 music chart.
- Insert all the elements that make up the TOP 10 of the current week (songs, jingles, stingers, recorded voice-overs…)
- Select **Events Schedule** tab, choose *Saturday* from the days menu and *14:00* from the time points menu
- Click *Insert* button, select SEQUENCE, choose TOP 10 and click OK to confirm, or just drag&drop TOP 10 from the *Sequence list* into the *Events Schedule*
- Click *Export* button to open the *Insert* mask.
- Set *10:00* in the Time field, *Events* in the *Options* and select *Sunday*, then click *OK* to confirm.

The TOP 10 music chart will be broadcast every Saturday at 2.00 pm and a repeat on Sunday at 10.00 am. You will only have to update the TOP 10 Sequence with the new audio, before every Saturday.

In the Calendar panel, select *Show events* to display the scheduled items in the Events Schedule. Place the mouse on a colored box to see the info about the scheduled events.

WARNING: pay attention to the durations of the schedules and avoid crossing the schedule of two time points. For example, if you schedule at 10:00 a sequence of events, that lasts about 30 minutes, and you schedule another sequence of events at 10:15, OnAir will load the first sequence on top of the playlist at 10:00. At 10:15, when the first sequence has not yet been broadcast in its entirety, OnAir will load the second sequence on top of the playlist, moving the items still present in the playlist downwards.

If you want to schedule an event, or a sequence of events, that will be broadcast only once, you must use the *Manual Schedule*:

- Select **Manual Schedule** tab from the SCHEDULE panel, click on the *[+]* button to insert a date (eg: *14/10/2023*), then select or create a time point (eg: *18:00*)
- Click *Insert* button, select *Programs*, *Manual selection*, choose an item (eg: INTERVIEW WITH THE PRESIDENT) and click *OK* to confirm.

Only on October 14, 2023, at 6:00 pm, OnAir will insert the INTERVIEW WITH THE PRESIDENT program at the top of the playlist and will play it after the audio currently on the air.
Once OnAir has played the program, if there are no other events scheduled, it will keep on playing audio using the current Rolling Clock.

WARNING: pay attention to the durations of the schedules and avoid crossing the schedule of two time points. Moreover, *Manual Schedule* has the same priority as the *Events Schedule*, so avoid crossing the time points of the two schedule types.

5.1.D How To Schedule Events At Exact Time

By default, OnAir inserts all the events, that you schedule in *Events* and *Manual Schedule*, on top of the playlist when their showtime arrives, but only plays them after the current item on the air is finished or if the user manually skips it.
if you want to schedule an event that must start at a specific time, you must do as follows:

- insert the item, or the list of items, in the desired time point of the *Events* or *Manual Schedule*.
- as the last item, open the Insert window, select *External Command* from the menu and set "899 START ONAIR" in the *Start Command* field (no other parameters are needed).

For example, if you create the time point of 6:30pm on Friday and you enter a sequence consisting of
TIME SIGNAL
TRAFFIC CLUSTER OF 18:30
899 START ONAIR

OnAir, exactly at 6:30pm on Friday, will insert the Time Signal and the Traffic cluster at the top of the playlist, will skip the event on the air and start the Time Signal, followed by the Traffic cluster.

ATTENTION: insert the External Command always AT THE END of the list of events you want to start at an exact time.

5.1.E Templates

XRadio allows you to create multiple scheduling structures to manage changes in schedules based on the various periods of the year.
For example, you can create a general structure, one for the summer schedule, one for the Christmas schedule, and so on.

CREATE A NEW TEMPLATE

- From the Menu bar of XRadio main window, go to *Options*→*Settings* and select *Schedule Manager**Template*
- Select an available letter from the *Template* menu (eg: *<A>*) and write a *Description* (eg: *Summer*)
- The *Prefix* field will automatically fill in with the first three letters of the *Description* (eg: *SUM*)
- Click *OK* to confirm.
- Open Scheduling window, click *Template* from the Menu bar and select the new template to start working on it.
- Select *Standard Schedule* from the Template menu when you want to go back to the default schedule.

SELECT A TEMPLATE FOR THE PLAYOUT

- Open the OnAir Setup (see related chapter) and go to *On-Air**Scheduling**Advanced 1*.
- Write the Prefix of the template (eg: *SUM*) in *Prefix of the scheduling archives* parameter and click *OK* to confirm.
- In the OnAir playout window, click the UPDATE button to activate the change.

6. TRAFFIC SCHEDULING

The first part of the work regarding traffic schedule is managed with the *Traffic* table in the Library, which is where the user must insert every commercial and its respective scheduling periods.
Then, in the **Traffic Scheduling** section, you have a preview of the scheduled commercials in the current week:



To export the Traffic schedule, click *Send Data* and select a period using the *Start Date* and *End Date* fields, then confirm by clicking *OK*. The program will show a confirmation window at the end of the export.

The export action generates, for each day of the selected period, a .TXT file containing the Traffic schedule that OnAir will read to play the commercials on the air.

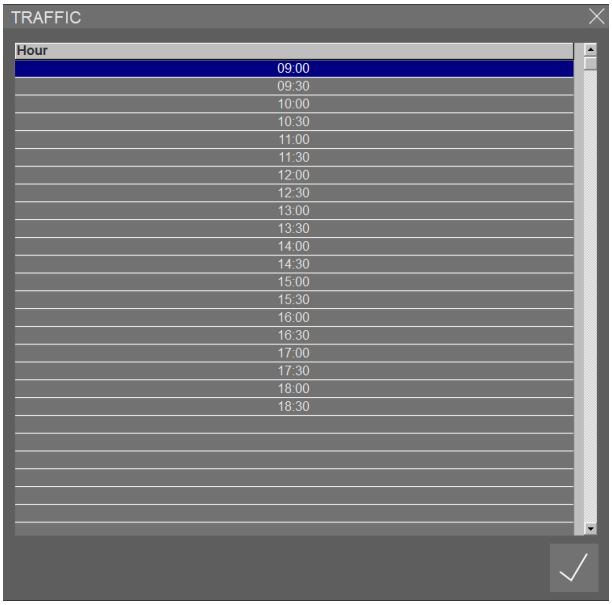
6.1 HOW TO PLAY TRAFFIC

There are several ways of playing Traffic on the air:

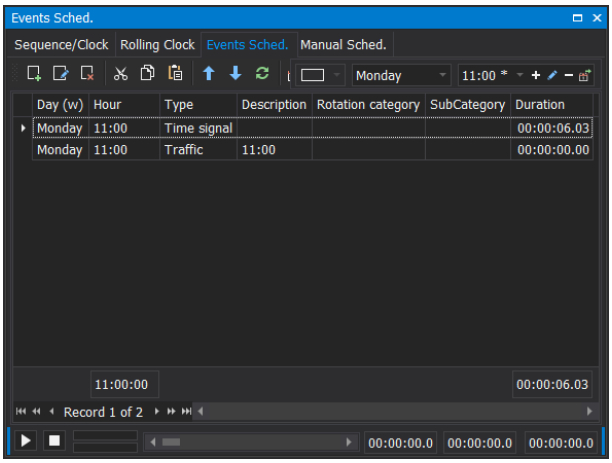
1)with the Automatic/Manual mode of the *TRAFFIC* panel in the OnAir playout
2)by manually inserting a cluster into the playlist
3)by scheduling the clusters into *Events* or *Manual Schedule*

The first method is the one ready to use when you first install XRadio. With this method, the user leaves OnAir to manage the preparation of the clusters to be broadcast based on their scheduling time (read the related paragraph in the ONAIR chapter). The limitation of this method is that you cannot know in advance at which point in the playlist the Traffic will be ready to air.

With the other two methods, the user has more control over the placement of clusters within the playlist, regardless of their scheduled time.



If you want to manually insert one or more clusters in the playlist, you just must click the *[+]* button associated to the position where you want to insert the cluster, select Traffic and double-click on the time of the desired cluster.

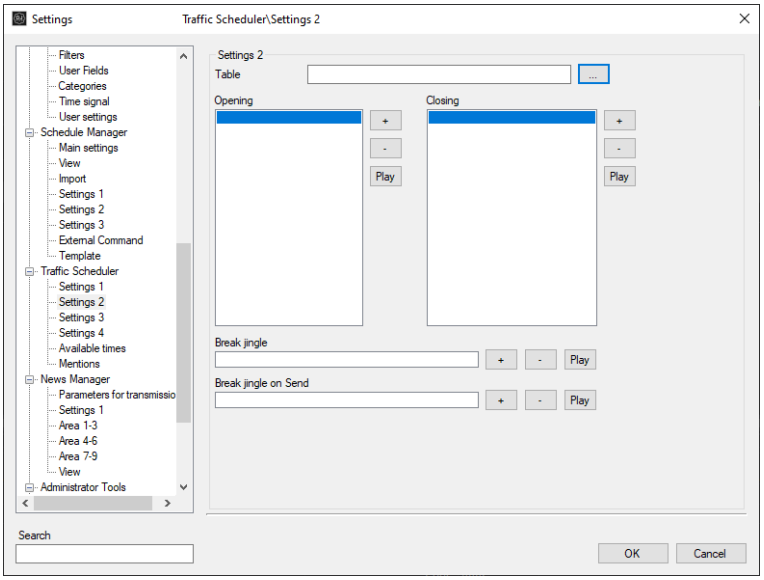


If you want to schedule one or more Traffic clusters in the *Events* or *Manual Schedule*, select the desired time point in the Scheduling panel (eg: Monday at 11:00) Click Insert button, click *Traffic* voice, select the cluster you want from the drop-down menu and click OK to confirm.

The manual insertion and the schedule of a cluster into the playlist has the priority over the Automatic/Manual mode management of the TRAFFIC panel. Which means that OnAir does not automatically repeat clusters that have already been broadcast or are in the playlist.

6.2 JINGLES ASSOCIATED TO TRAFFIC

OnAir can automatically play an opening jingle and a closing jingle associated to Traffic clusters. To configure these jingles, go to *Options→Settings* and select *Traffic Scheduler\Settings 2*.



Click the *[+]* button next to the *Opening* box to browse the IDs table and select one item as the starting jingle.
Do the same in the *Closing* box for the ending jingle.
Select the first empty line in the opening box and in the Closing box and use the *[-]* button to delete them.

If you want, you can also set a *Break jingle* that OnAir will play between one commercial and the other into the cluster.

By default, XRadio chooses the jingles from the Library's IDs table, but you can use another table by selecting it in the *Table* field.

If you add more jingles in the *Opening* list and in the *Closing* list, OnAir will use them in a rotation by choosing one for each cluster.

7. ONAIR

7.1 INTRODUCTION

OnAir is the program for the playout; it allows you to broadcast songs, news, traffic and all the available audio, for a complete radio automation.



7.2 USING THE PROGRAM

The use of OnAir is simple and intuitive, it is divided into separate areas and the buttons are user friendly.

7.2.A PLAYLIST

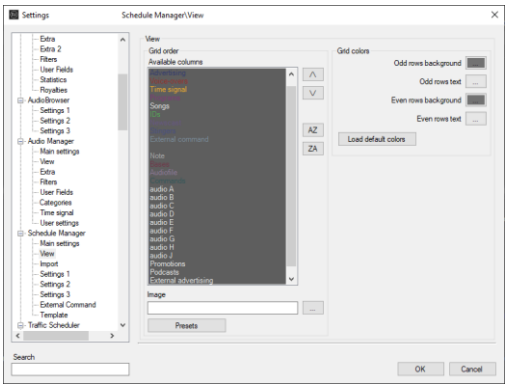


On the left there is a list of the events waiting to be transmitted (playlist).
The event on top (step 1) shows what OnAir is currently broadcasting, while below there is the complete sequence of loaded steps.
It is possible to scroll through this list by pressing the arrow buttons that allow you to move one step at a time, one page at a time or to go directly on top or bottom of the list. These buttons are displayed on the right of the playlist.

Each step is described by the following data:
<TITLE> <ARTIST> <ROTATION CATEGORY> <YEAR> <ALBUM> <DURATION> <INTRO> <OUTTRO> <SCHEDULE TIME> <AIR TIME> <MIXOUT>.

Note: The displayed data can change their meaning, according to the type of the aired event (the information of a song is different from those of a News Bulletin).

Also, under the number of each step you can see a colored band that represents the macro-category to which the event belongs, as well as the thumbnail on the right. You can modify both the color of the band and the thumbnail if you go to *Options→Settings* and select *Schedule Manager\View*:



Double click on any item of the *Available columns* list to open a color palette and choose the color you prefer.

Select an item and use the *[…]* button under the list to browse your system and choose the *Image* file that you want to use as the thumbnail.

Click *Presets* if you want to restore the default values.

AIRED EVENT AND NEXT ONE



You can skip the aired event and play the next one (step 2) by simply clicking the *Play Next* button.



You can stop the aired event by clicking the *Stop* button or pressing the **Pause** key on the keyboard.

When you stop the aired event, OnAir does not play any audio and sets the transmission mode to *Manual*. Click the *Play Next* button to manually play the next item; click the *Automatic* button or press the **spacebar** on the keyboard to set OnAir back to automatically play the items of the playlist.

CHANGING THE POSITION OF AN EVENT INTO THE PLAYLIST

If you want to move an event into a different position of the playlist, drag it to the new position. The item in the original position and the following playlist will move one step down. You can disable this option from the OnAir Setup.

REMOVING AN EVENT



To delete an event from the playlist, simply click on the button on its left, that will immediately remove it and move one step up all the events below; you cannot remove the aired event, but you can go to the next one by pressing the play button.

ADDING AN EVENT

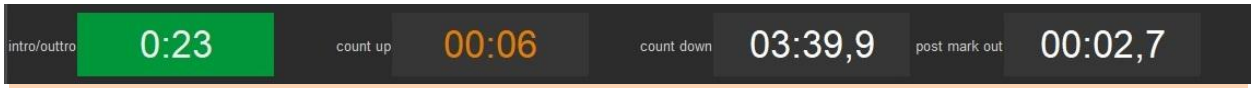


To add a new event in the playlist, click on the button on the right: a selection mask with all the available audio categories appears (see the section MENU FOR THE CHOICE OF AN EVENT), and the chosen audio is inserted in the position where you pressed the inserting button, moving one step down all the events below.

You can insert and play external audio files, not belonging to the Library, by opening a folder in Windows and moving a file into the playlist with drag-and drop. This option can be disabled from OnAir Setup.

7.2.B COUNTERS

The situation of the aired event is shown in the time panel just below it; an example of the time panel is shown in the figure below:



Intro	It is the time in which the DJ can talk on the air without overlapping the words of the song that is starting (the background color turns orange when there are three seconds left)
Count Up	elapsed time of the event
Count Down	remaining time to the end of the event (the end is defined by the Mark Out point)
Post Mark Out	difference given by the real length of the event and the mark out

Note: The Mark Out is the point where the mixout of the aired event begins and OnAir starts playing the next event; this value can be equal to or less than the real duration of the audio file.

The same information of the counters is reported, in a graphic view, into OnAir main panel on the right, together with the clock and the Country name (this value is automatically detected by Windows Regional settings, but it can be modified in the OnAir Setup).

7.2.C PLAYOUT MODE



When you start OnAir, the *Automatic* mode is set for both scheduling and advertising (unless otherwise specified).
In *Automatic* mode the events are played consecutively, and when the playlist is empty the program loads new events by choosing them according to the schedule (see the *SCHEDULING* Chapter).



When OnAir is in *Manual* mode, you must click *Play Next* to start each event.
You can switch from *Automatic* to *Manual* mode by pressing the spacebar on the keyboard. When you switch from *Manual* to *Automatic* mode, if there is nothing on the air, ONAIR starts broadcasting the events from step 2.

7.2.D VUMETERS

The VuMeters displayed in the upper right corner show the original output level of the audio file currently played by ONAIR.

If you do not want to display the VuMeters, you must enable the *Hide the VuMeters* parameter in the ONAIR Setup.

7.2.E UPDATING PARAMETERS



You must press the *UPDATE* button to let OnAir know about some changes in the settings, to update it about any changes in the Songs data or in the Traffic schedule of the day.

During the update, the button displays a small progress bar; the update function is disabled if a Traffic cluster is ready (*TRAFFIC* panel turns YELLOW) or is being played.

NOTE: use the *UPDATE* function only if truly necessary.

7.2.F TRAFFIC

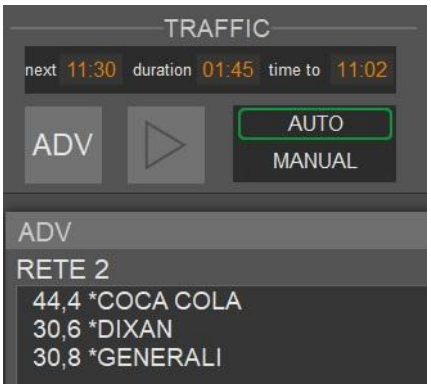
By default, OnAir automatically plays a Traffic cluster when its schedule time arrives, but only after the currently airing item has finished. If you want to run a Traffic cluster at a predefined time, you can insert it into the playlist in two ways:

- manually: insert a new event, click the *Traffic* button and choose an advertising cluster
- automatically: through scheduling (*Events Schedule*, *Manual Schedule*, *DIGIWARE* schedule).

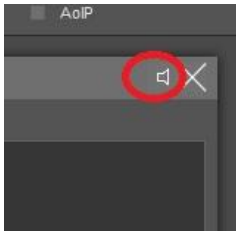
Even when using the second way, the *TRAFFIC* panel displays the schedule time of the next Traffic cluster.



By clicking on the [ADV] button, the following mask will appear on the right side of the screen.



The info on top show the schedule time of the next cluster, its duration (in case of splitting areas, it shows the duration of the longest one), and the countdown to the scheduled time.



Pressing the related button, the cue mask for the advertising appears.

Two buttons are shown above the red timer:



Automatic

Traffic will be played at the scheduled time after the end of the aired event (unless specific parameters that are described in the Traffic settings).



Manual

It is up to the operator to confirm the broadcasting of each cluster by clicking on the *Play* button in the Traffic mask, which will activate at the scheduled time.

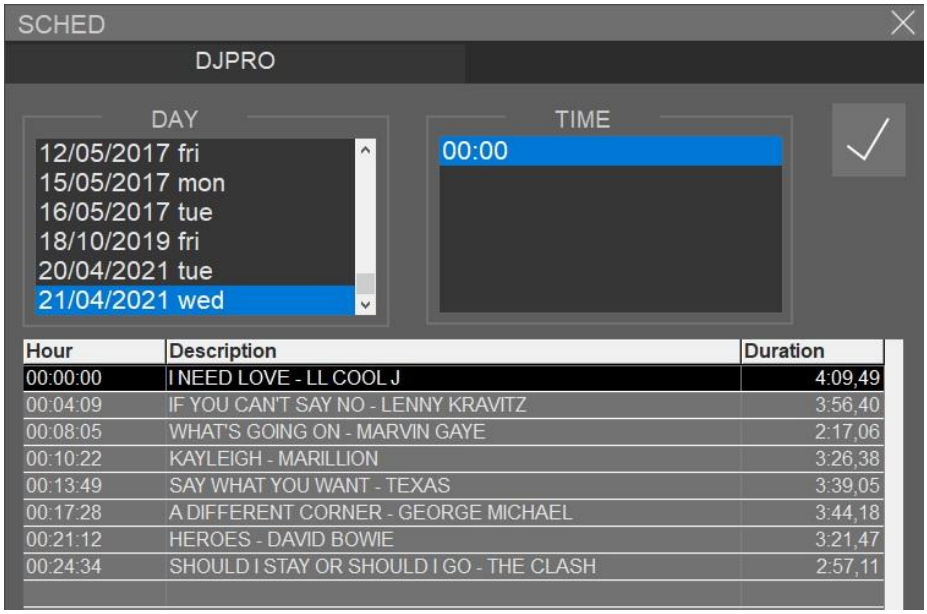
The duration and description of each commercial composing the cluster are displayed in the *ADV* box.

WARNING: If you change the audio or the composition of a cluster in the current day, you need to press the *UPDATE* button to notify OnAir of the changes. If you changed the audio or the composition of the cluster that is already loaded in the TRAFFIC panel, you must also double-click on the value that shows the next schedule time.
If you happen to change the Traffic schedule of the day often, you can enable some parameters in the Traffic setup which allows OnAir to automatically update when the Traffic schedule changes.

7.2.G SCHEDULE SELECTION

OnAir loads the playlist according to the generated schedule and the setup parameters, refer to the Scheduling chapter for information on the different ways of creating and editing the schedule.
You can manually load any daily schedule in the playlist via the [SCHED] button.

SCHED	You can select a schedule by pressing the [SCHED] button, a mask appears on the right side of the screen:

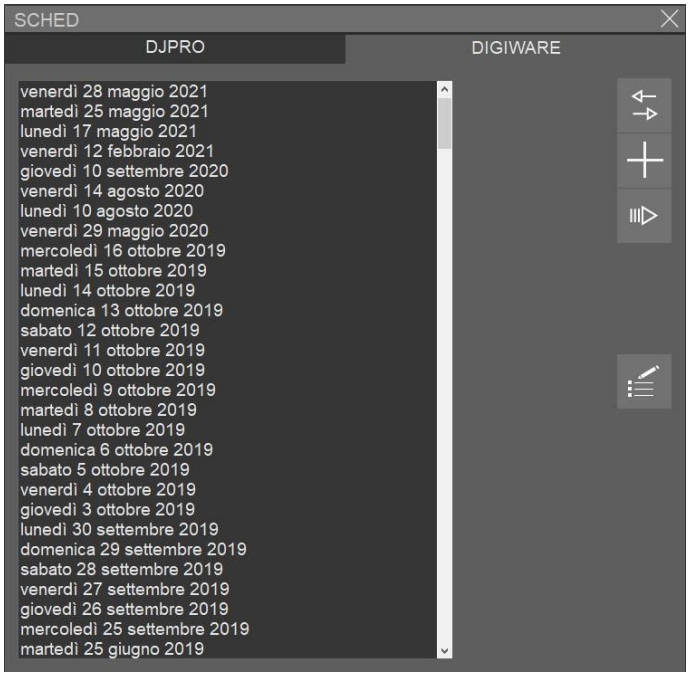


In the Day box, there is a list of the dates containing at least a daily schedule. Selecting one of these dates, the hour points of the related schedule will be displayed on the Hour box.

✓	Choosing a time, the related schedule will appear in the box below. Click the button to insert this schedule on top of the playlist or close the panel to return to the main screen and cancel the insertion.

If you double-click on a schedule line, the item will be inserted in the playlist together with the previous one and the following one.

OnAir can also read the daily schedules generated by *DIGIWARE* or by other third-party softwares, such as Selector and Music Master.
Note: If you want OnAir to play the schedule generated by DIGIWARE, you must activate *Enable Digiware Mode* parameter in the OnAir setup (see related chapter).
In this mode you can load a daily schedule in the playlist, just select a day from the following mask:





REPLACE: replaces the current playlist with the selected schedule (only the steps following the current time will be loaded).



INSERT: inserts the selected schedule in the playlist, starting from the first position and moving down the steps previously loaded (only the steps following the current time will be loaded).



APPEND: appends the selected schedule to the steps previously loaded (only the steps following the current time will be loaded).

The [SCHED] button turns green during the REPLACE, INSERT and APPEND operations of the schedule. If you use the DIGIWARE schedule, at every new schedule update, OnAir automatically refreshes the playlist and the [SCHED] button turns green to tell the operator that an update is in progress.



Select a day and click this button to display all the scheduled items:

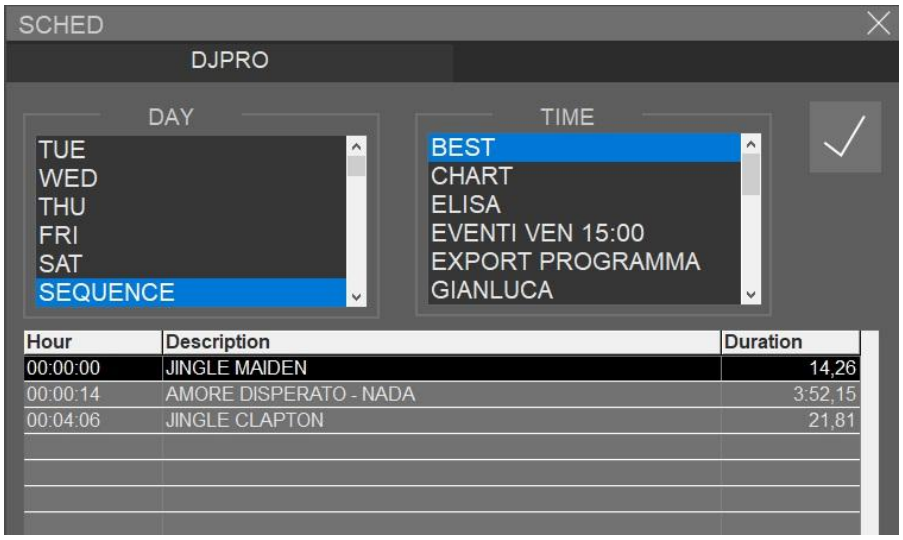


If you double-click on an item, the program will insert it in the playlist's first position.

Note: the daily schedule generated by DIGIWARE will be automatically loaded into the playlist 10 minutes before midnight.

SELECTION OF EVENTS AND SEQUENCES

In the OnAir Setup, you can set *Elements to be shown when clicking the SCHED button* to show the *Events Schedule* and the *Clocks* using the [SCHED] button. The possible options are:
1 - The SEQUENCE voice appears in the DAY box; if you select it, the list of available Clocks appears in the TIME box; you can directly insert a Clock into the playlist by selecting it and clicking the *Confirm* button.
2- The weekdays of the Events Schedule appear in the DAY box; select one day to display the related time points in the TIME box; you can directly insert a time point into the playlist by selecting it and clicking the *Confirm* button.
3 - Both the SEQUENCE voice and the weekdays appear in the DAY box.



7.2.H EMERGENCY KEYS

The **Emergency Keys** are three commands that have been designed to forcibly stop the playback of some special events, such as Traffic clusters, which cannot be stopped using the *Stop* function.

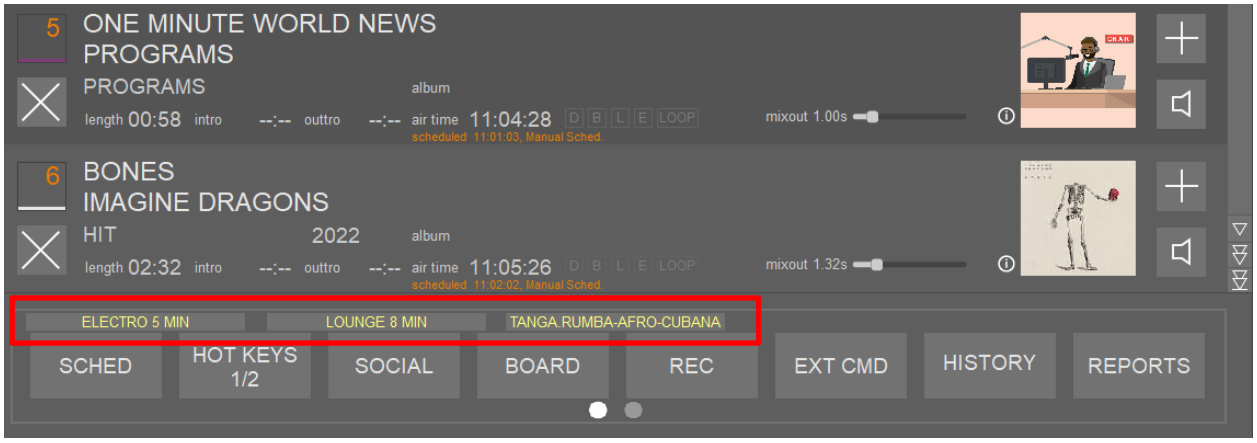
With the activation of one of the *Emergency Keys*, OnAir stops the aired event and sets the play mode to *Manual*.

By default, you can activate the E*mergency Keys* using a key combination when OnAir window is active: simultaneously press the *[Alt]* and *[1]* keys to activate the first emergency key; simultaneously press the *[Alt]* and *[2]* keys to activate the second emergency key; simultaneously press the *[Alt]* and *[3]* keys to activate the third emergency key.

If you want to associate an audio to the *Emergency Keys*, use the *Hot Keys* tool in **Administrator Tools** section (see related chapter).

Press the *Play Next* button to resume the scheduling and play the next step, then you can switch back to *Automatic* mode. **You cannot switch back to Automatic mode if you did not use the *Play Next* button first**.

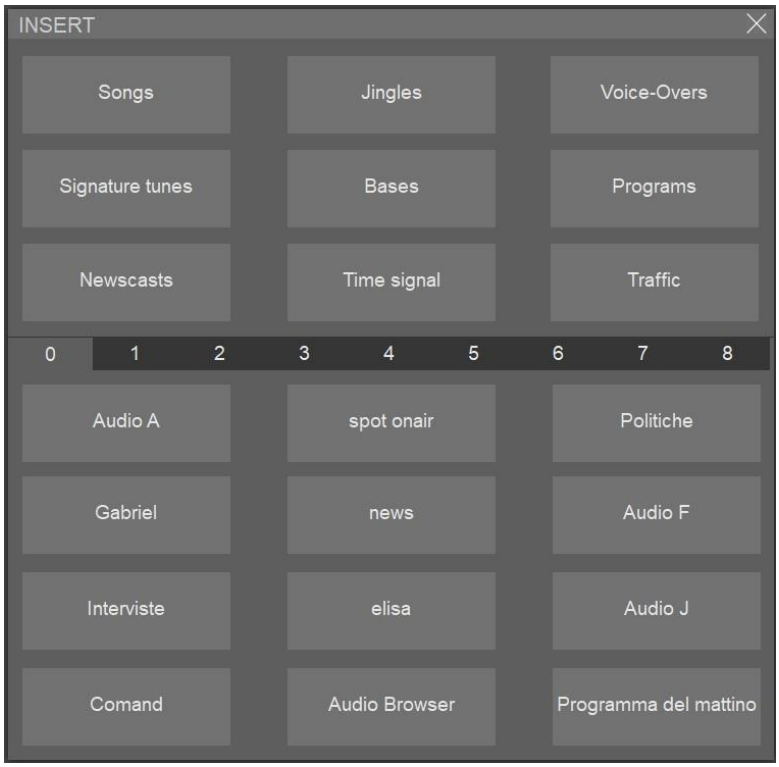
You can display the three *Emergency Keys* buttons under the playlist section, by enabling *Display the Emergency buttons* parameter in the *On-Air\Main Settings 2* section of the ONAIR Setup.



7.2.I Menu For The Selection Of An Event



Click on this button to insert a new item into the playlist, the selection menu opens:



The voices displayed in the top half of the menu are default, they cannot be modified. The voices in the bottom half of the menu can be customized according to the user you access with when opening the OnAir playout.
By clicking the buttons from 1 to 8, other selection pages appear (you can manage them from the *Audio Manager* section in the main setup).

Click on one of the voices to open the related table of the Library; double-click on a line of the table to add it into the playlist, in the position where you clicked the **[+]** button or drag&drop the item into the playlist to insert it in one of the visible positions.

The insertion method just described does not apply with the following categories:

TIME SIGNAL

Click the *[Time Signal]* button to directly insert the *Time Signal* event into the playlist. When the time comes to play the Time Signal, OnAir will read the PC time and automatically select the relevant hour and minute audio files. See the *Time Signal* paragraph to know how to set the base of the time signal, the hours and minutes.

TRAFFIC

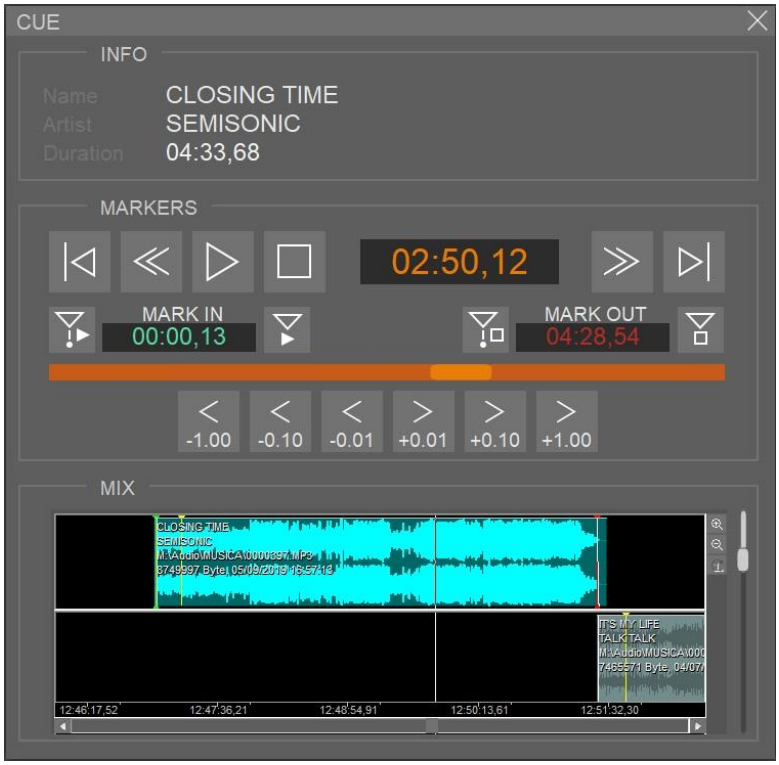
Click the *[Traffic]* button, the daily list of the advertising clusters appears. Double-click on a time point to insert the cluster into the playlist.

WARNING: if the daily list is empty, it means OnAir is not finding the Traffic schedule of the day.

7.2.J CUE



You can cue any audio included in the playlist by pressing the button on the right side of the related event, and the following mask appears:



MARKERS



The *Play* button starts the cue of the selected audio.



The *Stop* button stops the cue.



Use the "forward" and "backward" buttons to move ten seconds into the cueing.



move +/- 1 second, +/- 1 tenth of a second, +/- 1 hundredth of a second, or place to the beginning or end of the track



This button sets the starting point (Mark In) of the audio.



This button sets the Mark Out point of the audio

The settings of Mark In and Mark Out for the selected audio are temporary and do not affect the original values saved in the Library, they will be erased after the audio will be played

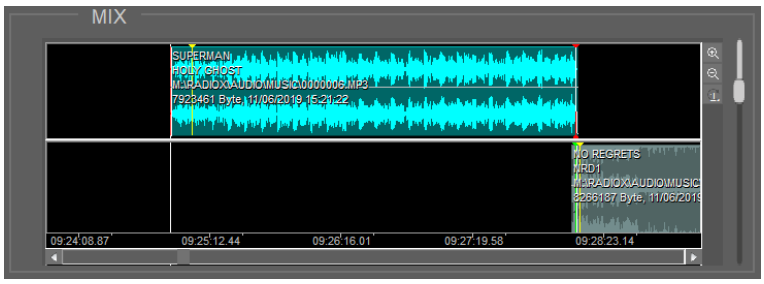


With this button, you can listen to the end of the previous step and the beginning of the cue (mix in). By default, you hear one second before and one second after the Mark In; if it is not enough, you can increase the listening period up to 60 seconds with the *Prelisten time for the mix* parameter in the *On-Air\Audio\Mix* section of the ONAIR Setup.



Click this button to listen to the mix between the selected item and the beginning of the following item (mix out). The fader next to the waveform changes the MIXOUT value of the selected item, so you can change the mix out with ease, also thanks to the visualization of the graph in the *MIX* section. As for the Mark In, by default, you hear one second before and one second after the Mark Out, unless you change the value of the *Prelisten time for the mix* parameter in the *On-Air\Audio\Mix* section of the ONAIR Setup.

MIX



Under the MARKERS sections, you find a multi-track view with the graph of the selected item and the first part of the next item in the playlist. If you do not see the waveform into the view, click on it and use the *REDRAW* button on the right to generate the waveform.
If you move the mouse on one of the marking points, the mouse pointer turns into a small hand and you can drag&drop the marking points in a new position.

The **CUE** button is also active for *News Bulletins* (you can prelisten only the first story) and *Traffic* (you can prelisten only the first commercial of the first area. The **CUE** button is not active for the *Time Signal*.

7.2.K HOT KEYS

HOT KEYS 1/2

Press **[HOT KEYS 1/2]** or **[HOT KEYS 3/4]** to display the following keyboards on the right of the screen:



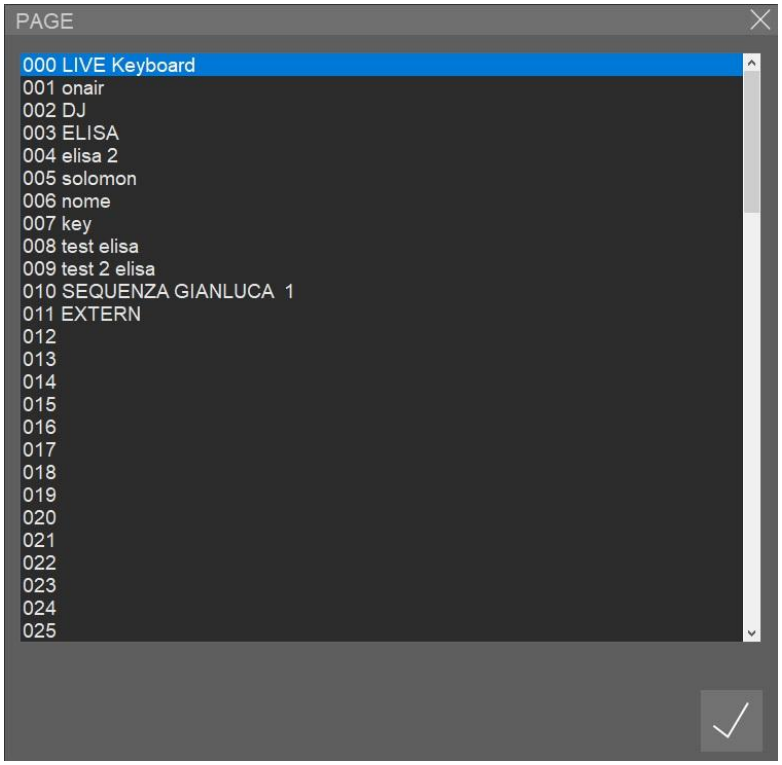
You can define a series of pages made of IDs, bases or loops etc. Each page can contain 20 keys. The default available pages are 100, but if you need a larger number of pages, you can change it in the main settings.

Click an item to play it. Hot Keys can play once or in a loop. Keys with looped audio are indicated with an icon on the left. The time to the end of the audio is indicated in the related counters:

0:06:00.3 and 0:00:00.0

To manually stop the play of an audio, click the *Stop* button to the left or right, according to the page the audio belongs to.

To change the current page, click one of the related buttons, the one on the left for the left keyboard (white), the one on the right the right keyboard (yellow). The list of all the available pages appears:



You can select a page by double clicking on it or by selecting it and pressing the *Confirm* button.

When you run OnAir, it loads page 001 to the left and page 002 to the right, so it may be convenient to associate the most used audio to these two pages. To modify the content of these pages, use the *Hot Keys* tool in **Administrator Tools** section (see related chapter). *OnAir* automatically updates the content of the pages each time they are loaded.

7.3 SCHEDULING RULES

When in *Automatic* mode, ***OnAir*** reads the schedule at the beginning of each minute and loads the events into the playlist at their scheduled time.
The priority of the types of scheduling is so ordered, from highest to lowest:

- *Events Schedule* and *Manual Schedule*
- *Rolling Clock*.

OnAir loads the *Events Schedule* and *Manual Schedule* only at the scheduled day and time and typically inserts their items on top of the playlist.
OnAir loads the *Rolling Clock* every time the playlist is empty; ***OnAir*** always uses the content of the last time point encountered based on the current day and time, until the next scheduled time point.

The most frequent request in the various schedulings is the selection of songs by *Rotation Category*. Every time ***OnAir*** automatically loads a song by Rotation Category, it makes a calculation based on some parameters that are set in the *On-Air\Scheduling\Automatic song selection* section of the OnAir Setup:

- **Artist repetition time**
- **Max number of songs in the selection queue**
- **Max number of songs in the first selection queue**
- **Percentage of songs in the selection queue**
- **Percentage of songs in the first selection queue**

WARNING: *Percentage of songs in the first selection queue* and *Percentage of songs in the selection queue*, if set, have the priority on *Max number of songs in the selection queue* and *Max number of songs in the first selection queue*.

How these parameters work during the song selection:
1) All the songs of the scheduled *Rotation Category* are ordered according to the last time they were broadcast.
2) The first [**Max number / Percentage of songs in the first selection queue**] songs are taken, discarding those which Artist has been broadcast less than the time set in [**Artist repetition time**].
3) One at random is chosen among the remaining songs.
4) If no songs remained, the choice is repeated among the first [**Max number / Percentage of songs in the selection queue**] songs.
5) If the Artist's check fails for all the songs also in this occasion, the program selects the song of the scheduled *Rotation Category* which has been broadcast longer, without checking the author's repetition.

Each user can customize all the parameters described above according to their needs.

To avoid frequent repetition of the artists, it is appropriate to set a schedule by *Rotation Category* only if there are at least [**Max number / Percentage of songs in the selection queue**] songs of that category, but also with a different number of Artists.

N.B.: The selection of IDs, bases, stingers, voice overs and programs by *Rotation Category* usually occurs randomly and with no regard to repetitions.

7.4 DIGIWARE SCHEDULE

Only if using the schedule made by *DIGIWARE*, **OnAir** can perform the following functions:
- broadcast an event (and following ones) only after a certain time.
- broadcast an event within a certain time.
- broadcast all the events of a group (without deleting the ones that exceed the time limit).

INITIAL SETTINGS

The main parameters for the management of Digiware schedule in OnAir are set in *On-Air\Scheduling\Digiware 1* section of the OnAir Setup:
- OnAir uses the daily schedule produced by DIGIWARE only if you set the **Enable Digiware mode** parameter.
- The folder where DIGIWARE schedules are exported must be specified in the *Playlist text file path* parameter.

When *Digiware mode* is enabled, the list of schedules created with DIGIWARE appears by clicking the [SCHED] button.

We recommend setting *Display only the number of playlist shown* by assigning a value from 1 to 9, which indicates how many exported daily schedules to show before and after the current day.

LOADING THE SCHEDULE

By default, Digiware schedule is loaded in the playlist:
- at OnAir's start
- at every new data send from Digiware
- at 10 minutes to midnight of each new day
- when clicking the UPDATE button.

You can disable all the automatic loading systems by setting the *Disable the loading of the playlist* parameter: by doing so you can manually load Digiware schedule only by the [SCHED] button.

The schedule of the new day is appended into the playlist 10 minutes before midnight, both for not overloading OnAir's work at midnight and for starting the new schedule on time.

When you run OnAir, the schedule is automatically loaded from the first event that has the scheduled time greater than the current time. If you prefer that the schedule is loaded from the first event greater than or equal to the BEGIN of the current hour, just enable the *Load the playlist from the On-Air start time* parameter (eg: if you run OnAir at 16:18, it will load the schedule starting from 16:00).

When OnAir realizes that today's schedule has been changed, or when you press the *UPDATE* button, the playlist is reloaded starting from the first event that has time greater than the current time, avoiding to modify the first steps and the following steps if they belong to the same group of the first ones. This number of steps is set with the *Number of events to update after* parameter; if it is set to 0, OnAir considers it as 2 by default.

Example: if you press the *UPDATE* button at 07:01:30 and the schedule includes

07:00:00 SONG 1
07:04:30 STARTING STINGER
07:04:50 PROGRAM LINKED TO PREVIOUS
07:10:00 ENDING STINGER LINKED TO PREVIOUS
07:10:10 SONG 2

The first step that OnAir would modify in the playlist is STARTING STINGER, but since *Number of events to update after* is 2, it will keep both STARTING STINGER and PROGRAM and, since ENDING STINGER too is linked to PROGRAM, it will start reloading the playlist from SONG 2.

Generally, OnAir checks every 40 seconds if the daily schedule has been exported again: when it happens, if OnAir is in *Manual* mode, the update of the playlist takes effect immediately; if OnAir is in Automatic mode, the update takes effect as soon as there is an audio with a length greater than 60 seconds, 30 seconds have already been played and more than 30 seconds are to the end. You can disable this automatic update feature by setting the *Disable the automatic update of the playlist* parameter: doing so, you can update the daily schedule only through the *UPDATE* and [SCHED] buttons.

Note: if you have set a special OnAir configuration with the *VOICE TRACK*'s record option enabled ([VT] button), the daily schedule is not loaded both at OnAir's startup and at each new data export. When you record the VOICE TRACKS of the current day schedule using this *VT* OnAir, the Main OnAir receives the modifications as soon as you close the VT OnAir or after the number of seconds set in *Maximum waiting time for the INV files*, since the last change made to the voice track.

TEMPORALLY LOCKED EVENTS

In Digiware schedule, you can set events that are *locked* to a certain hour, which means OnAir cannot start them before a minimum time (*Min Hour*) or will try to start them before a maximum time (*Max Hour*).

When OnAir is in *Automatic* mode, if in position 2 of the playlist there is a locked event with *Min. Hour* set, and the item on the air will end at a time before *Min Hour*, OnAir will use the *Rolling Clock* schedule to automatically add in position 2 one item at a time play it until the Min Hour is reached (for this reason it is important that a *Rolling Clock* schedule is always set).

If you want to give a few seconds of tolerance to the locked events, i.e. you want OnAir to advance their start when the end of the airing item is next to *Min Hour*, you can set the *Seconds of tolerance for the addition of songs* parameter which prevents OnAir to insert a song if there is less than the seconds set to arrive to *Min Hour*.

If OnAir is in *Automatic* mode and a locked event with *Max Hour* is in the playlist and if its expected *Air Time* is higher than the Max Hour, the necessary erasable events between position 2 and the position occupied by the locked event will be removed and all the necessary interruptible events will be interrupted (by moving the mark out to OUTTRO), thus to start the locked event before the *Max Hour*.
In the above cases, the events belonging to the same group as the aired one are never deleted, even if they are erasable, but are interrupted if they are interruptible.

The erasable and interruptible events are removed and interrupted only in the presence of locked events.

If for any reason a locked event with *Min Hour* and *Max Hour* is deleted from the playlist before the *Min Hour*, the next item in the playlist will inherit the same options (if it is not already locked). This is to maintain the lock even if the locked event's audio is missing, or if the locked event is a note that is automatically deleted by OnAir.

Note: if ONAIR has the *VT* option active, the locked events are managed as if they were not locked.

DIGIWARE AND XRADIO SCHEDULE

You can use at the same time both the DIGIWARE schedule and XRadio's *Events* and *Manual Schedules*, that will mix according to the scheduled times.
If you want to disable the *Events Schedule*, disable the *Enable Events Schedule* parameter in the *On-Air\Scheduling\Advanced 1* section.
If you want to disable the *Manual Schedule*, set the *Manual scheduling loading mode* parameter to 0 – Manual.

7.5 THE NEWS BULLETINS

The newscasts are aired by following these steps:

- starting tune;
- musical background (repeated until the end of the News Bulletin) with the volume level set from the SETUP;
- news are played over the musical background;
- at the end of the news, the ending tune is played.

7.6 THE TIME SIGNAL

The Time Signal, generally, is broadcast in this way:

- The base starts playing (note: the base is not played in a loop, so it must be long enough to include the reading of the hours and minutes).
- After the time specified in *Voice Starting* (refer to *Audio Manager\Time signal settings*) the reading of the hours and minutes starts and, at the same time, the volume level of the base is lowered.
- At the end of the time reading, the volume level of the base rises and it is played to the *Mark Out* point.

7.7 VOICE OVERS

Voice Overs are audio that overlap two audio tracks with the intention to finish at the end of the intro of the second track (for example, they are used to simulate the presence of a speaker on the air) to do this, OnAir plays the Voice Over when the time to the end of the event on the air, added to the intro of the next event, is equal to the lenght of the voice over.

Refer to *Voice Overs* chapter for more info.

OnAir automatically deletes the Voice Overs lasting less than half a second from the playlist.

7.8 RECORDING

If you have set an audio card for recording, in OnAir you can use the *REC* panel to record some audio and retransmit it.
Recording can be done on a separate audio file, or directly on XRadio's tables, such as Programs, Bases, IDs… etc.

REC

Click on the [REC] button to open the recording panel.
The screen shows the following mask:



By default, clicking the folder icon the list of Programs appears and you can choose the audio you want to record. If, through the OnAir Setup, you have set more than one table where to choose the item to record, you must right-click on the folder icon to switch the selected table; when you see the name of the desired table, click with the left mouse button to display the list.
If you press the record button, and the audio input does not reach the *VOX* threshold, the panel and the *REC* button turn YELLOW, and when OnAir starts recording they turn RED.
To set the recording parameters, refer to the *On-Air\Recording* section of the ONAIR Setup manual.

SCHEDULED RECORDING WITH REG- AND FIN-

you can automate the recording, on a single audio file, of some passages played by OnAir (e.g.: recording on one audio file a sequence of events such as stinger, promo, News Bulletin… etc.).
To do this, you need to prepare 3 different records in any audio category, who have for example the following descriptions and filenames:

Description	Filename
REC START	**REG-**M:\RADIOX\AUDIO\PROGRAMM\EDITION.MP3
REC STOP	**FIN-** M:\RADIOX\AUDIO\PROGRAMM\EDITION.MP3
EDITION	M:\RADIOX\AUDIO\PROGRAMM\EDITION.MP3

The audio with REC START as description will give OnAir the command to start the recording on the audio file named M:\RADIOG\AUDIO\PROGRAMM\EDITION.MP3.
The audio with REC STOP as description will give ONAIR the command to stop the recording.
The audio with EDITION as description will be the one that will contain the recorded audio.
To automate the recording of three events in a single audio file, such as, for example

STINGER
PROMO
NEWS BULLETIN

you must schedule:

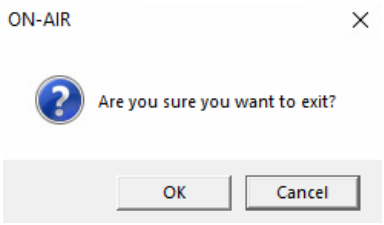
REC START
STINGER
PROMO
NEWS BULLETIN
REC STOP

When OnAir will find the REC START event in position 1 of the playlist, it will skip the event and the recording will start on M:\RADIOG\AUDIO\PROGRAMM\EDITION.MP3; it will play the STINGER, followed by the PROMO and then the NEWS BULLETIN; when it will find the REC STOP event, it will skip the event and stop the recording.

Note: the automatic recording procedure works well if OnAir is in *Automatic* mode.

7.9 CLOSING THE PROGRAM

If you want to close OnAir, click the *X* button on the top right of the window. The following message appears:



Click [OK] to definitively exit the program.

Click [CANCEL] to keep it open.

Warning: if you close the program, OnAir does not broadcast any audio until you run it again.

7.10 KEYBOARD SHORTCUTS

OnAir can be supplied with a pre-configured keyboard with the main commands to operate on its interface.

In case you don't have one, you can use the PC keyboard: some keys are associated with special functions for OnAir, below you will find a detailed description.

Alt-R: Reading of transmissions log
Alt-R opens the NOTEPAD with today's transmission log.

Alt-L: Reading of advertising log
Alt-L opens the NOTEPAD with today's advertising log.
Note: This log exists only if the *Type* parameter in the *On-Air\Transmission Log\Transmission Log 1* section is set on "3 - .TXT .REG and .LOG logs".

Alt-T: Reading of DIGIWARE log
Alt-T opens the NOTEPAD with today's DIGIWARE log. The DIGIWARE log is much more detailed than the transmissions log, although harder to understand for the operator.

Alt-D: Reading of DJL log
Alt-D opens the NOTEPAD with today's DJL log. This log contains information on the actions done on the interface by users during the functioning of OnAir (for example, switching from one mode to another, clicking the *Stop* button, clicking the *UPDATE* button… etc.)
Note: This log exists only if the *DJL* parameter in the *On-Air\Transmission Log\Transmission Log 1* section is different from 0 and if the *Path* parameter contains an existing folder.

WARNING: If the NOTEPAD opens with the message: "The file 15-05-10.txt is too long. Use another editor", close the message and then the NOTEPAD. If any log is longer than expected, you can check the content by using another editor**.**
It is strongly recommended not to open today's transmission log with MS WORD or another editor that will open the file in exclusive mode.

[Spacebar]: Switching between Automatic and Manual mode
Spacebar switches from *Automatic* to *Manual* mode and vice versa.

[Enter]: Play of the event in position 2
Pressing the **Enter** key, the event in position 2 is moved in position 1 and is broadcast.

[Pause]: Stops broadcasting.
Pause Stops broadcasting and switches to *Manual* mode.

WARNING: This key cannot stop Traffic or News Bulletins.

[Ins]: Advertising start
Ins-0, **Ctrl-Ins**, **Ctrl-0**: any of these keys starts the Traffic if it is ready.

Alt-1: Execution of Emergency keys
The **Emergency Keys** interrupt the broadcast, switch to *Manual* mode and possibly play an audio (see Emergency Keys paragraph).

ESC: Quick exit from the selection windows
ESC closes some panels, such as *CUE*, *Insert* and *SCHED*.

Scrolling the steps in the playlist
[-] or **Page Up** or **Arrow Up**: moves a step up.
[+] or **Page Down** or : moves a step down.
[*] or **Ctrl-Page Down** or **Ctrl- Arrow Down**:moves to last step.
[/] or **Ctrl-Page Up** or **Ctrl-Arrow Up**: moves first step.

HOT KEYS

Left keyboard
F1 plays the content of the first key
…
F12 plays the content of the twelfth key
Shift-F1 plays the content of the thirteenth key
…
Shift-F8 plays the content of the twentieth key
Home displays the list for selecting the page to load.
Del stops the audio currently playing.
Ctrl-A switches to next page
Ctrl-S switches to previous page
Ctrl-Enter repeats the last played audio

Right keyboard
Ctrl-F1 plays the content of the first key
…
Ctrl-F12 plays the content of the twelfth key
Ctrl-Shift-F1 plays the content of the thirteenth key
…
Ctrl-Shift-F8 plays the content of the twentieth key
Ctrl-Home displays the list for selecting the page to load.
Ctrl-Del stops the audio currently playing.
Ctrl-D switches to next page
Ctrl-F switches to previous page

Ctrl-Shift-Enter repeats the last played audio

ATTENTION: to use the keyboard shortcuts, the OnAir window must be active and in the foreground

7.11 ADVANCED FEATURES

7.11.A MONITOR AND INPUT RETRANSMISSION

If you have an available audio input in the OnAir machine, in addition to recording, you can also display and retransmit an external audio source that you are ingesting to that input.
There are two different modes of functioning according to the *Mode* parameter in the *On-Air\Audio\Monitor* section:

MON

- *STANDARD* (default): pressing CTRL+SHIFT+left mouse button on [MON] stops OnAir playlist broadcast, switches to *Manual* mode and the audio input is played; pressing ALT+SHIFT+left mouse button on [MON] again restores the OnAir playlist broadcast and switches to *Automatic* mode; the audio input is constantly monitored, if it goes below the value set in *Silence Volume (dB)*, in the *On-Air\Audio\Monitor* section, for more than a period set in *Max Silence Time (s)*, OnAir switches to *Automatic* mode.

MON+

- *ACTIVE WITH VOLUME ATTENUATION*: clicking with the left mouse button on [MON+] enables the reading of the audio input level, if OnAir is in *Manual* mode, the audio input is broadcast; then, clicking with the right mouse button on [MON+] stops the audio broadcasting and leaves OnAir in Manual mode.
ATTENTION: clicking [MON+] when OnAir is playing will overlay the external audio onto the playout audio

- *ACTIVE WITH EXTERNAL COMMAND ON*: clicking with the left mouse button on [MON+] stops OnAir playlist broadcast, switches to *Manual* mode and the audio input is played. Clicking with the right mouse button on [MON+] stops the audio broadcasting and leaves OnAir in Manual mode.

For further details about the options and settings of the MONITOR, refer to the related sections of the ONAIR SETUP.

7.11.B EXCLUDED SONGS AND AUDIO

In the Songs table you can specify that a song has the "Excluded" attribute. By default, OnAir can select the excluded songs when using a schedule by *Rotation Category*, except if, in *On-Air\\cheduling\Automatic song selection* section, you activate the *Disable Songs* parameter.
Also, in the Insertion panel, the excluded songs do not appear in the Songs table unless you select the *Ecluded* button that you find in the toolbar.

The *Excluded* option is also available for the other audio tables, in which case the parameter you must activate for not using them in the selections by *Rotation Category* is *Disable Jingle*.

7.11.C VOLUME SLIDER

Usually, you can manage the audio level of the broadcast by the audio panel of the sound card you are using in the OnAir PC and, most of all, by the audio mixer that is receiving the OnAir outputs.
In case you are not provided with an audio mixer, you can display the volume slider of the aired event by clicking on the [VOLUME] button. You must activate this function by setting the *Display Master* parameter in the *On-Air\Audio\Volumes* section of the ONAIR Setup:

4) *Display*: the audio level change affects the aired event only, OnAir restores the default value (maximum volume) when the next event starts
5) *Display and keep the same volume level*: the audio level change affects all the events on the air

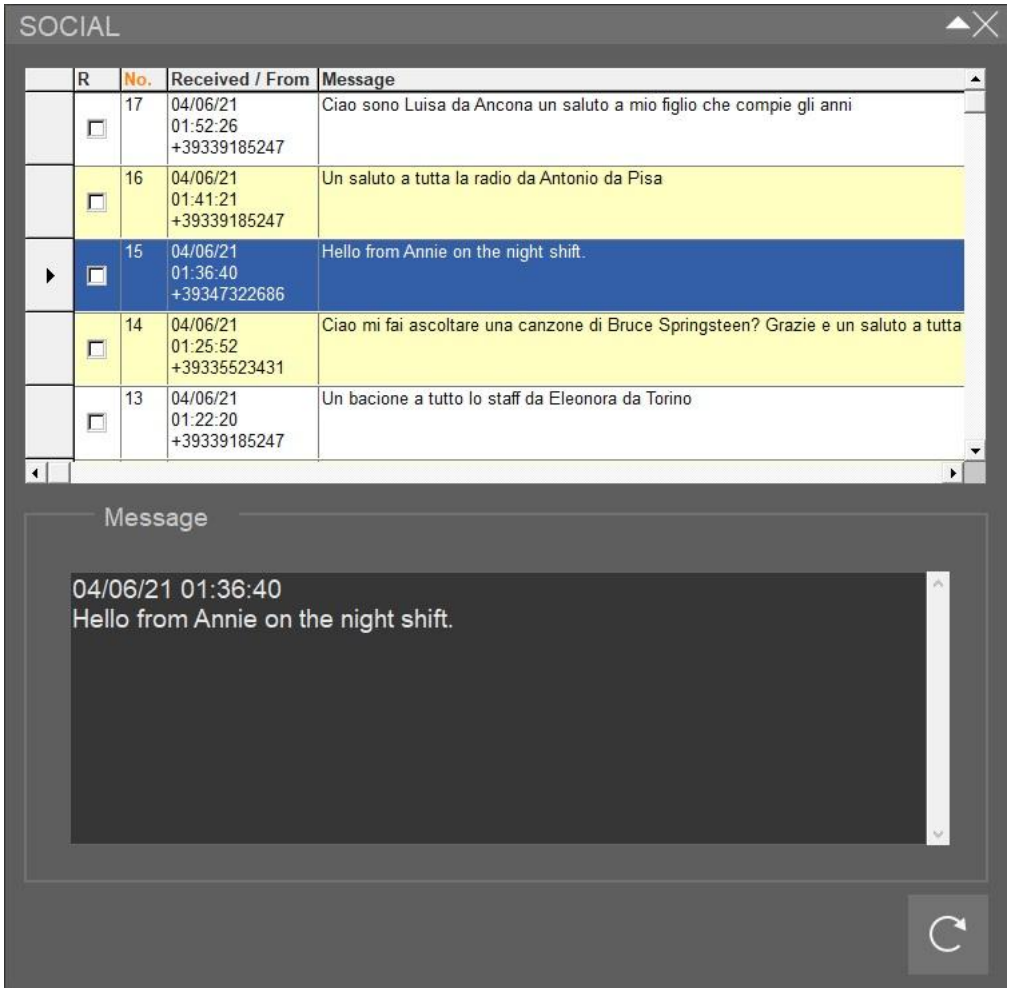
The volume change has no effect on Traffic, News Bulletins and Voice Overs.

7.11.D SOCIAL MEDIA MESSAGES

OnAir allows you to view and manage the social media message received by Axel Technology's **SocialHub**.
If you want to activate the messages panel, you must set the path of the folder where the messages are saved, in the *Recording path* field in the *On-Air\Communication\SMS* section. For further details about the parameters for this function, refer to Setup ONAIR Manager chapter.

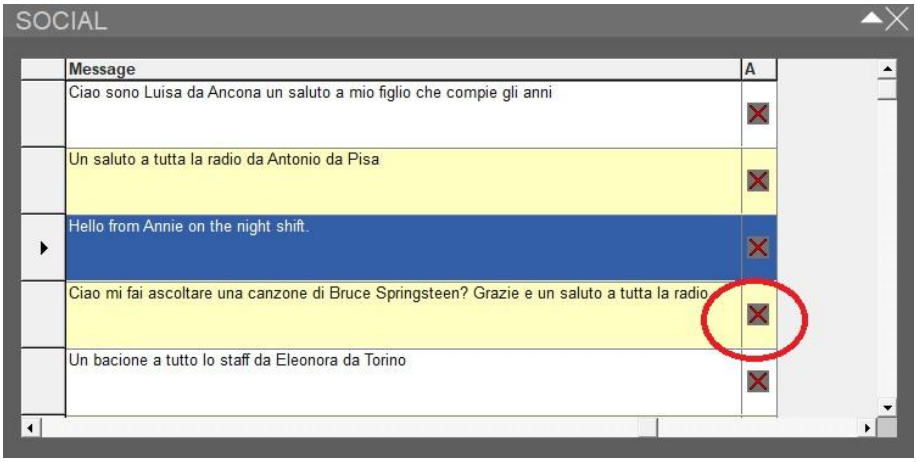
SOCIAL	Setting the messages reading function, the [SOCIAL] button is enabled, and it turns yellow when a new message is received.

Clicking the [SOCIAL] button, the following box appears:



Double-clicking on a line, or on the related checkbox, you mark a message as "read"; it turns gray and will disappear from the list at the next messages update.

To immediately cancel a message, double-click on the red X button.





To read the received messages instantly, press the button with the arrow icon; if you want to close this window, press ESC on the keyboard or use the X button on the top right.

7.11.E AUTO/MAN MODE FOR SCHEDULE

If you wish to use the manual loading of the schedule at some times of the day and, at some other times,.its automatic loading, you can enable the *Playlist loading mode* parameter in the On-Air\Scheduling\Advanced 1 section, which has the following function:

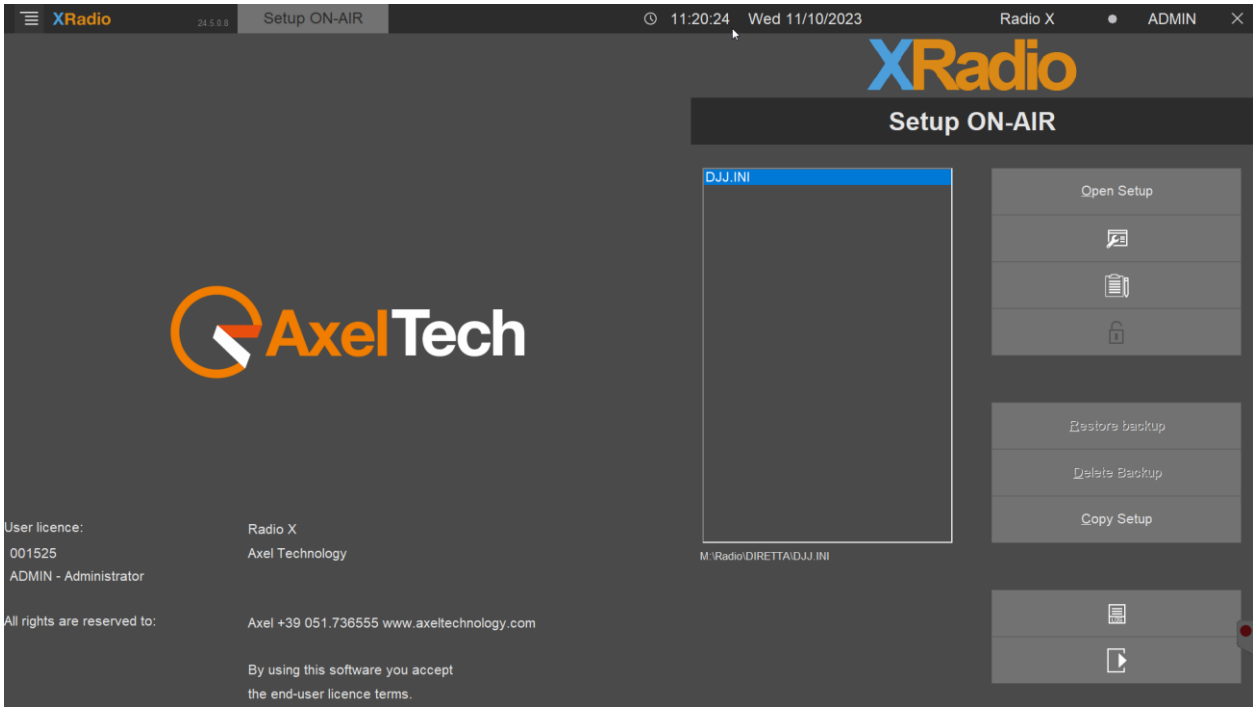
6) *Do not display buttons* (default): the daily schedule is loaded as usual, according to the parameters set in the ONAIR Setup
7) *Display and activate the AUTOMATIC loading*: when starting ONAIR shows, next to the VuMeters, the AUTO SCHED. \ MAN. SCHED switcher, and AUTO SCHED is enabled.
8) *Display and activate the MANUAL loading*: when starting, ONAIR shows the AUTO SCHED. \ MAN. SCHED switcher, and MAN. SCHED is enabled.

When MAN. SCHED. is enabled, the daily schedule can be loaded only by the user in the playlist; when AUTO SCHED. is enabled, the daily schedule is loaded according to the parameters set in the ONAIR Setup.

7.12 ONAIR SETTINGS

When you first install XRadio, you are provided with a Main OnAir playout ready to broadcast, but you can create and manage different types of OnAir, each with a different purpose.
You can have an Emergency OnAir that works in parallel with the Main OnAir from another workstation, or a REC OnAir that you can run on an Edit workstation, with which you can test the playback of a scheduled program and record some audio.

To create the various OnAir configurations, launch the *Setup ON-AIR Manager* application from the **OnAir Accessories** section in the Tools menu.



In the main window, you find the list of the available OnAi instances. When you install XRadio you will find only the Main OnAir configuration.
If you click on a voice of the list, below the box you can see the path and name of the related configuration file.

If you want to create a new OnAir configuration, select a voice from the menu and click on Copy Setup: a window opens, where must insert a file *Name* (max. 8 characters) and a *Description* for the new configuration (e.g.: *Emergency OnAir*).
This will create an exact copy of the original configuration, then you must open it and change it according to your needs.

Double click on a voice of the list or select it and click on *Open Setup* to open the settings panel.

To associate an OnAir instance to one or more XRadio users, you must open *User Manager* from **Administrator Tools**, select a user, open its *Permissions* window, expand the *OnAir* voice in the tree menu and select the desired OnAir instance.

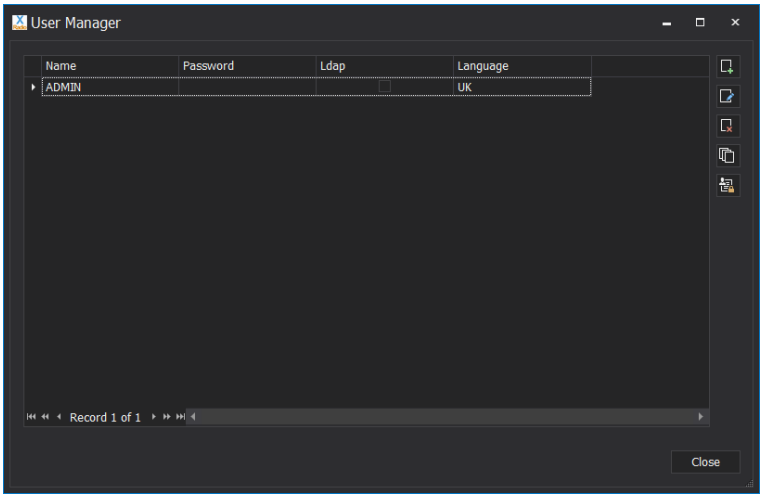
8. ADMINISTRATOR TOOLS

Administrator Tools contains a set of utilities that can help you to manage XRadio system.

8.1 USER MANAGER

User Manager is the tool for managing the rights of each XRadio user and defining the applications that can be open for the Tools menu.

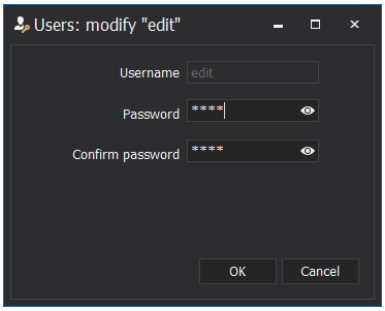
Click User Manager from the Tool menu to open the User Manager window:



When you install XRadio, the only available user is ADMIN, with full rights, no password.

Double click on the *ADMIN* item or use the *Modify* button to assign a new password to the ADMIN user.

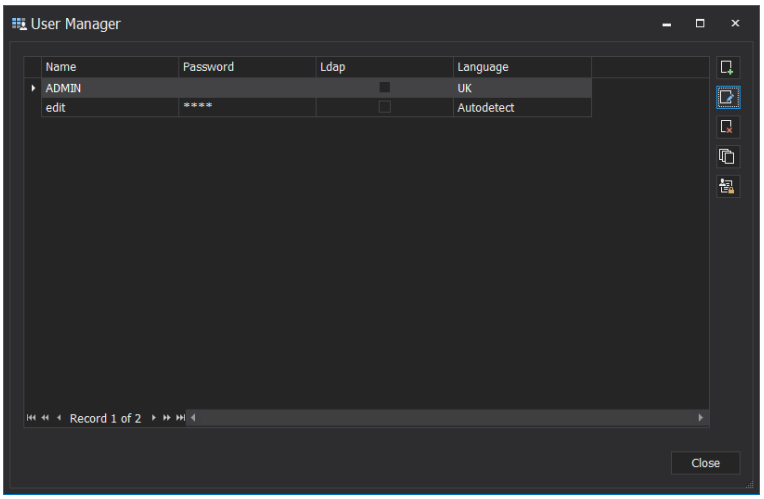
Click the *Insert* button to add a new user:



Write a *Username* (eg: edit) and, if you want, assign a *Password* to the new user.

Click OK to confirm.

Now the edit user has been added to the Users list:



When you select a User from the list:

Click *Modify* if you want to change its Password.

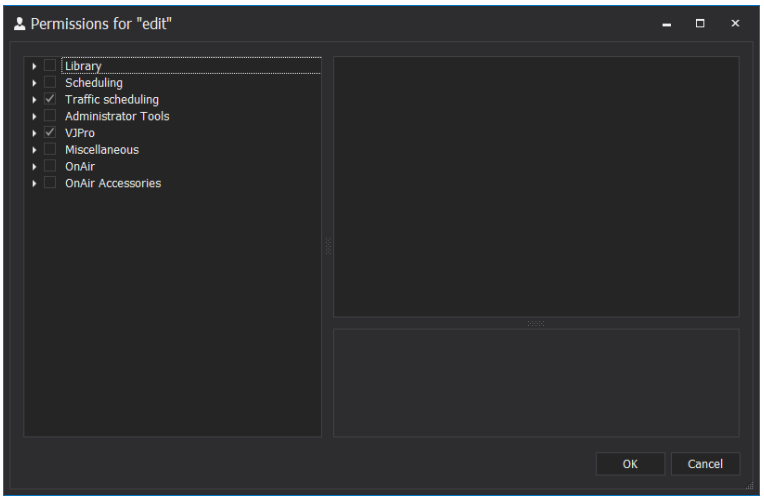
Click *Delete* if you want to delete the user.

Click *Duplicate* if you want to create a new user by copying the settings of the selected one.

You can associate the access to XRadio with each Windows User: you must create new users in XRadio, each one with the same name as a Windows User. In this way, every time you access Windows with a specific user and run XRadio, the program will open directly without asking for username and password.
If you want all Xradio users to always insert username and password at the program access, you must go to *Options →Settings* from the Menu bar, select *Common\Settings 2* and activate *Do not allow Windows username* in *Settings 2*.

8.1.A PERMISSIONS

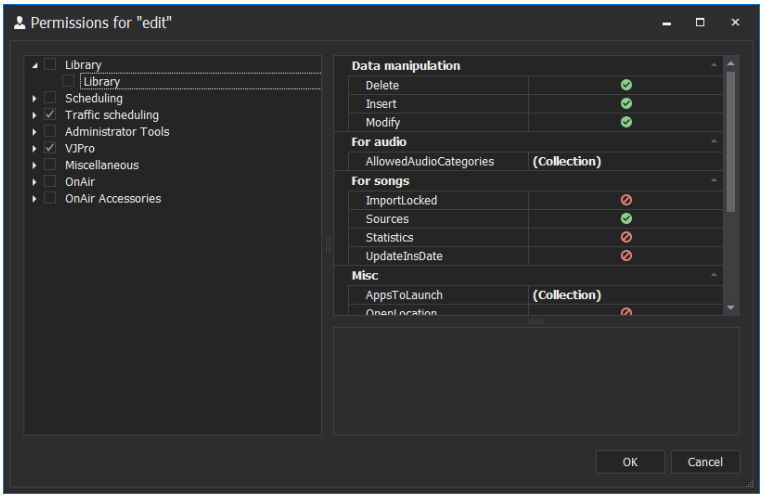
Select a user from the list and click *Edit permissions*:



The checked voices on the tree menu are the available program sections for the selected user. If you expand a voice of the menu, you will see the list of the applications belonging to that section.

You can enable/disable sections or individual applications for each user simply by selecting/deselecting the related voices in the menu.

If you expand a voice of the menu and select an item, the window on the right will show the related parameters:



Click the icon of each parameter to enable/disable it.

For each user you can decide if they can Delete/Insert/Modify the items into each table, or which audio tables they can work on, and so on.

The last parameter of each list is usually *the Permission level* that has four available options:
None – All the functions are disabled; the user cannot run the application from the Tools Menu.
Admin – User has the administrator rights on the application.
User – User can operate on the application but cannot access and modify its settings.
Guest – User can only browse the table contents and listen to the audio, but cannot do any changes.

8.1.B ONAIR RUN AT WINDOWS STARTUP

You may need to run OnAir automatically at every Windows startup. This function is useful if you have, for example, a power failure during the night and no one is on the Radio; OnAir automatically runs when power returns, if the OnAir PC and the Server have the automatic restart option enabled in the BIOS.

HOW TO SET ONAIR AUTOMATIC RUN AT WINDOWS STARTUP

9) In *User Settings*, create a new User (e.g: *ONAIR*)
10) In the *Permissions* select *ON-AIR* voice from the tree menu and enable the *RunAtStartup* parameter

You created a new user that will automatically run the OnAir playout every time you access XRadio with it.

11) Make a copy of the XRadio link that you have on your desktop and rename it (eg: *Main OnAir*)
12) In the link Properties, in the Destination field add M:**RADIOX**\BIN\WINDOWS\ **ONAIR** and save the changes. *RADIOX* is the folder where you installed XRadio Server, and *ONAIR* is the user you previously created that can run OnAir automatically.

Now the string in the Destination field is:
"C:\Program Files (x86)\DJPro\BIN.NETX\MediaLibraryLauncher.EXE" M:\RADIOX\BIN\WINDOWS\ ONAIR

If you double click on the *Main OnAir* icon on the desktop, it will open XRadio with *ONAIR* user that will automatically run OnAir playout.

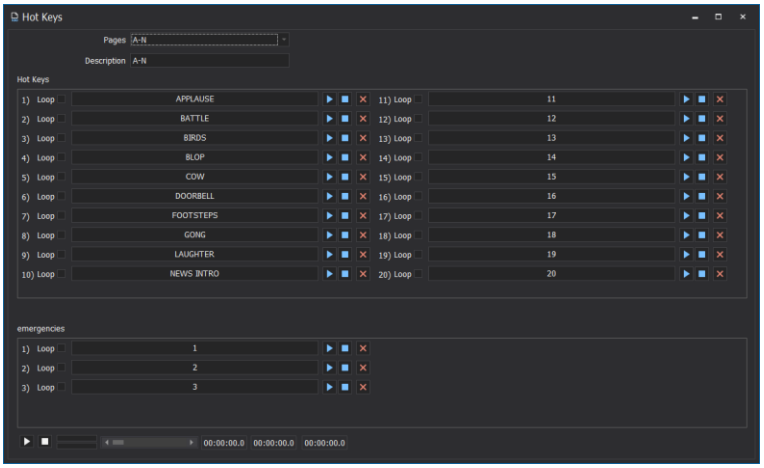
13) Finally, copy the Main OnAir link and paste it in:
C:\Users**WindowsUser**\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup

where *WindowsUser* is the user that is set to automatically access Windows at the PC startup.

In this way, OnAir will automatically run at every Windows access.

8.2 HOT KEYS

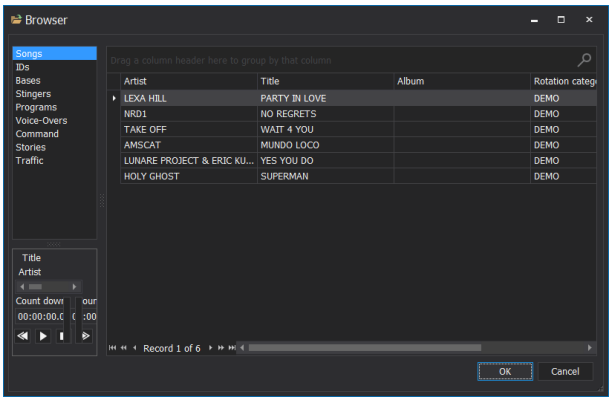
Here you create and prepare all the Hot Keys keyboards that you can use in the OnAir application.



Select a voice from the *Pages* menu to display the *Description* and content of the related Hot Key.

The *Emergencies* section displays the audio associated to the Emergency Keys (see related paragraph in OnAir Chapter).

If you want to associate an audio to a button, click on it to open the Browser:



Select one of the audio tables from the menu to display its content on the left and double-click on an item to associate it to the button.

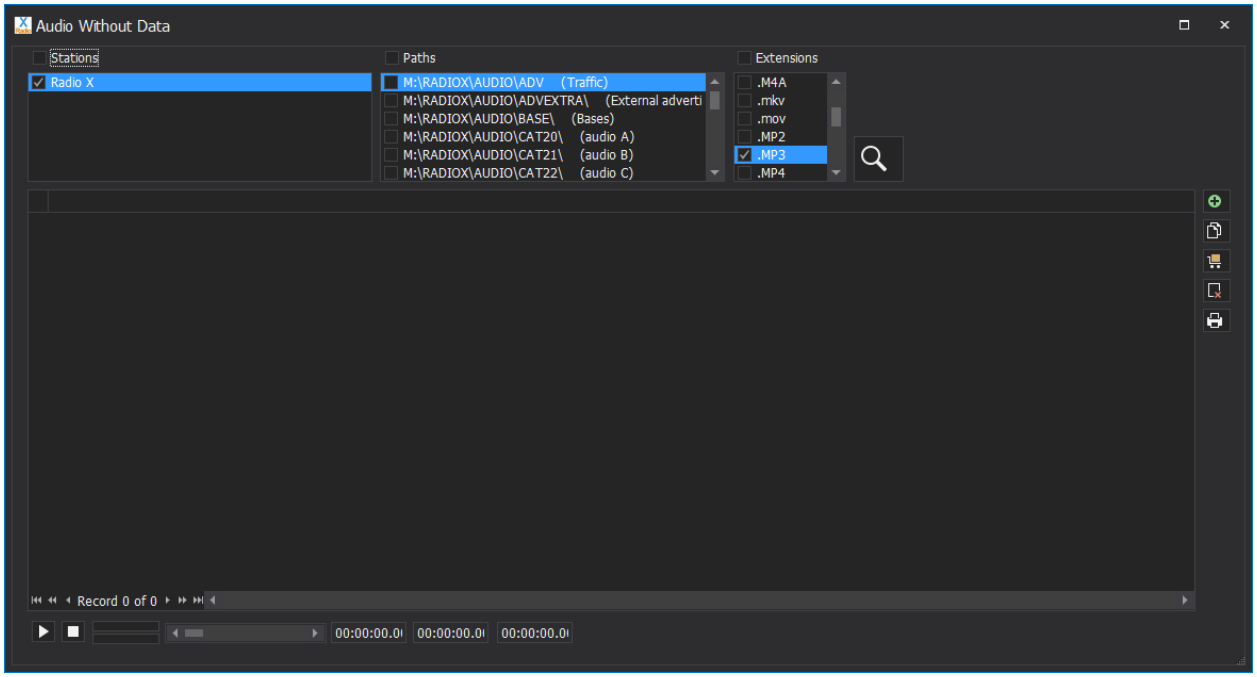
Alternatively, you can directly drag an item from a Library table to one of the Hot Key buttons.
If you associate an audio to a button that already has an associated audio, the new one will replace it.

Select the *Loop* option to the left of the button if you want to play the audio in a loop when you select it in OnAir (useful with backing tracks)

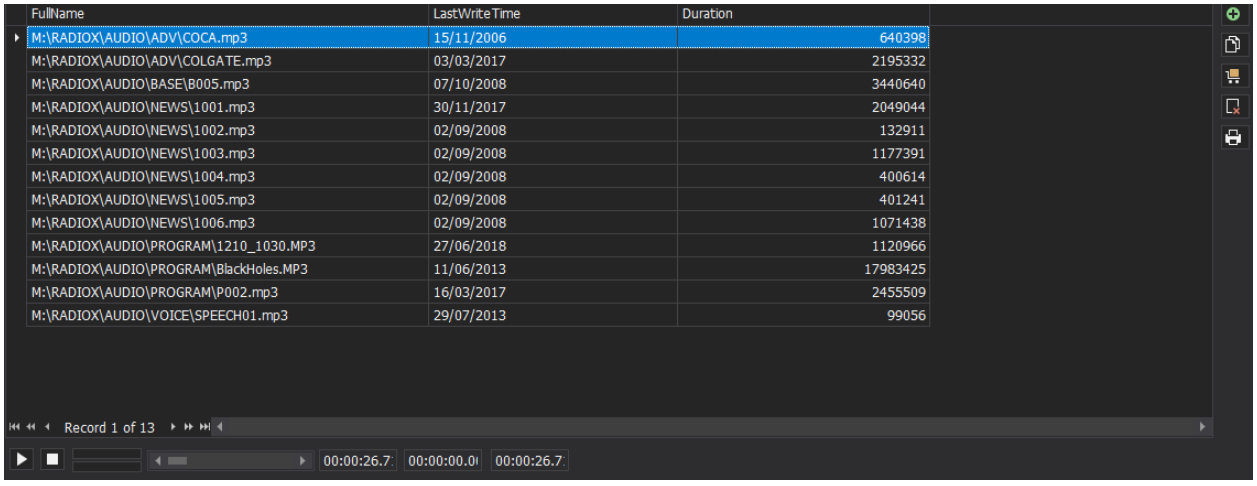
Click the red X to the right of the button if you want to disassociate the audio

8.3 AUDIO WITHOUT DATA

In XRadio, when you delete any audio item from any table in the Library, you delete their metadata, but the related audio files are not deleted, so that you can recover them in case you made a mistake in deleting the item.
However, in doing so, in the long term a quantity of audio files accumulate that are not linked to any data in your Library and are therefore unusable.
The ***Audio Without Data*** function allows you to find these audio files so you can check them and possibly delete them permanently, so as to keep your data tidy and clean.



Select the Radio station from the *Stations* menu, then in the *Paths* menu and in the *Extensions* menu select which audio categories audio formats you want to check. Finally, click on the icon with the magnifying glass to start the search.
The results will appear in the box below.



You can select one or more files from the list. The actions available for the selected files are:
- Listen to the audio, using the play/stop tool you find at the bottom of the list.

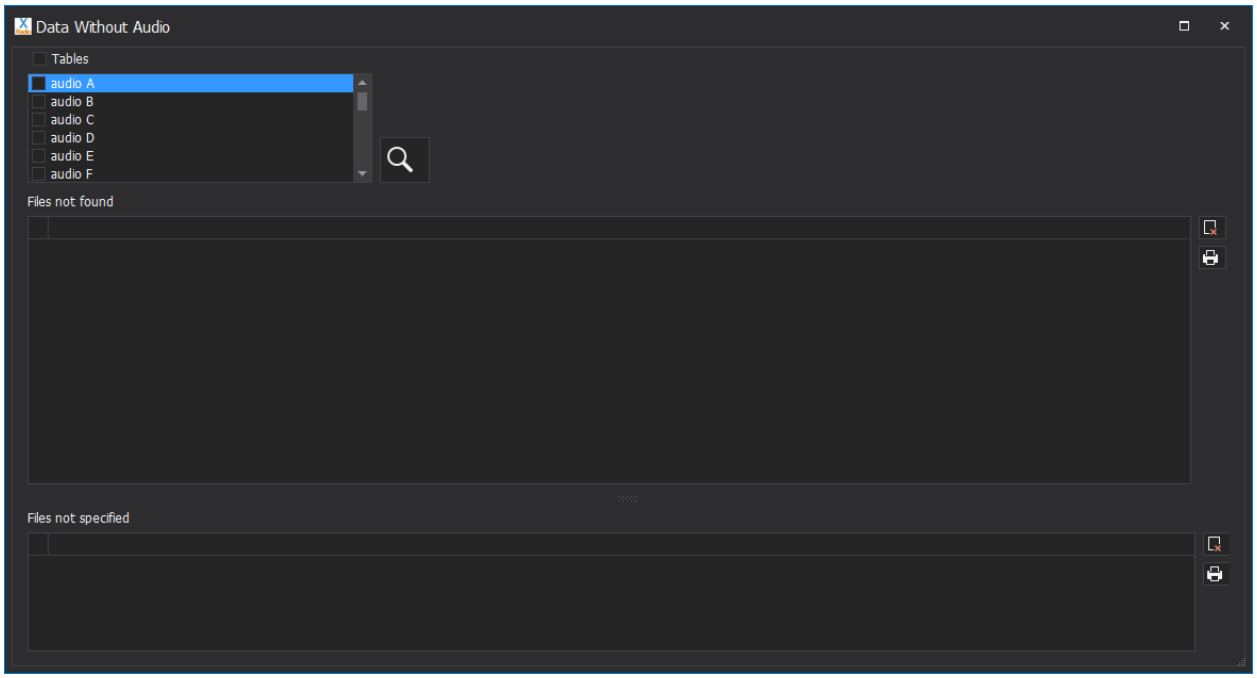
- Recover the audio using the **+** button on the right of the window, which opens a dialog box where you can specifiy the *Station* and the Table (*Archive*) where to copy the selected file, assigning a *Title/Description*, an *Artist* and a *Rotation Category* to it.
- Copy or move the file into a folder that you can specify (the tool will also create all the subfolders structure into the selected folder).
- Permanently delete the selected audio files.
- Print the complete list, and/or export it into a document.

ATTENTION: if you schedule the Traffic using RamComm, don't use this tool to delete the audio of the advertising, even if those files may be listed as unused.

NOTE: deleted audio files cannot be recovered.

8.4 DATA WITHOUT AUDIO

You can use **Data Without Audio** to verify the existence of the audio (file) for each item of each audio Table.



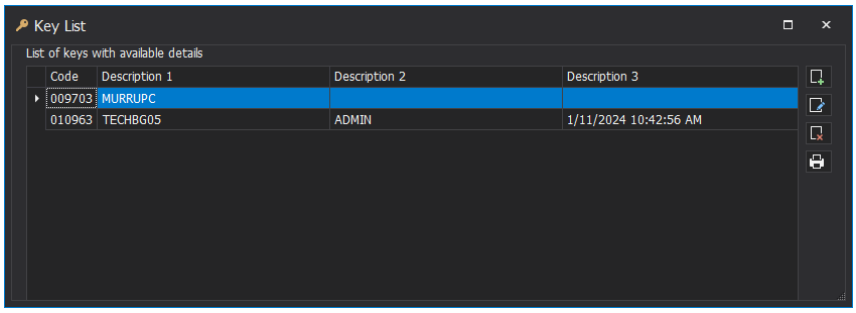
Select one or more audio Tables from the *Tables* menu, then click on the magnifying glass icon to start the search. The result will appear in the two boxes below:

- In the *Files not found* box the tool will show a list of items whose audio file is not present in the assigned path.
- In the *Files not specified* box the tool will show a list of the items for which neither the name nor the file path are specified. This is an unusual situation, as XRadio automatically assigns path and file name to each item of an audio Table, so it is likely that this data has been manually deleted by a user.

You can select one or more items into each list and you delete them, or you can print the whole list or save it into a document.

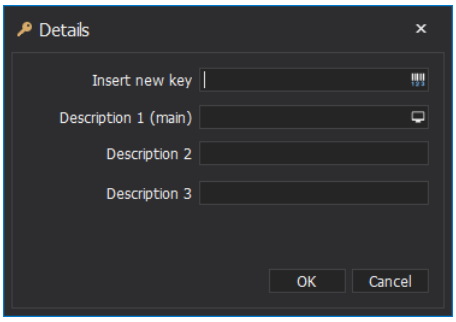
8.5 KEYS MANAGER

Keys Manager is a utility that allows you to associate a description to each dongle key on each computer. It facilitates the unique identification of each computer to allow you to trace the information when checking, for example, the transmission LOGs or OnAir operational LOGs.



The main screen shows the list of keys in the format <keycode> - <Description1> - <Description2> - <Description3> where Description1 indicates, usually, the name of the computer.

Usually, this list is automatically populated by XRadio which saves the data every time you open XRadio with a new key from a new PC, but you can modify this list at any time by adding a new item or deleting and modifying any item already present. Also, you can print the complete list or export it into a document.

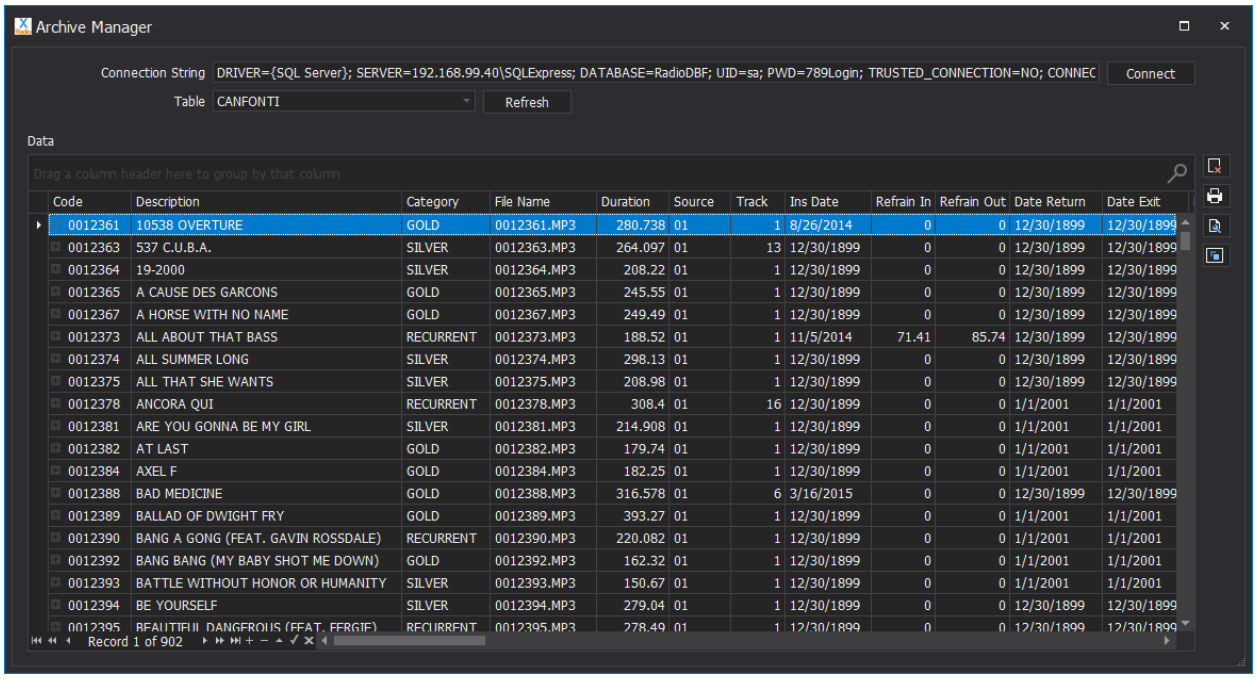


In the Insertion/Editing mask, you can click on the button on the right of the *Insert new key* box to automatically fill the data with the serial number of the key that is currently plugged in the PC you are working with.

In the same way, the button on the right of the Description 1 (main) box allows you to automatically fill the data with the name of the PC you are working with.

8.6 ARCHIVE MANAGER

Archive Manager is an advanced tool, intended for use by system administrators, that allows you to open the content of any Table and run specific utilities.
You must know the name of the Table assigned into SQL database in order to open the data you need: for example, the table's name for the songs is CANFONTI.
Click on *Connect* to load the list of the available Tables in the related menu, then choose CANFONTI: the resulting table will show you, in one view, the whole content of the Song's data.



From this table, you can select one or more items and delete them, you can print the whole list or export it into a document.

If you order the data by *Description*, and create a sub-order by *Artist*, then you can click on the tools button and use *Find duplicates* function to search for all the songs that have the same title and artist: in this way, you can delete the songs that you don't want to keep because are doubled. When you want to disable/enable the last result of Find duplicates function, you must click on the last button on the right, called *Show duplicated.*

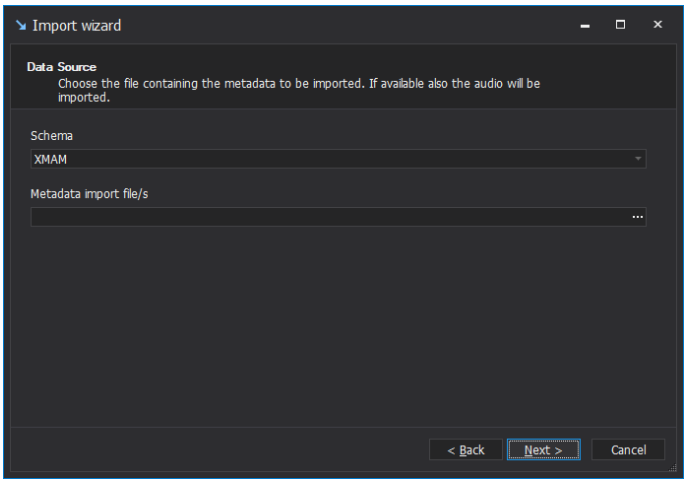
Furthermore, the *Recalculate Real Duration* utility allows you to check the actual duration of the audio files associated with each item and update the Duration field in the Table.
The *Recalculate Introduction, Final and Context Duration* utility works in the same way for the related audio.

The *Reset Last Passages* utility deletes all the info related to the last passages of each song that are saved in the Songs Table: this action will affect XRadio's schedule by Rotation Category, as all songs will be considered as never having aired.

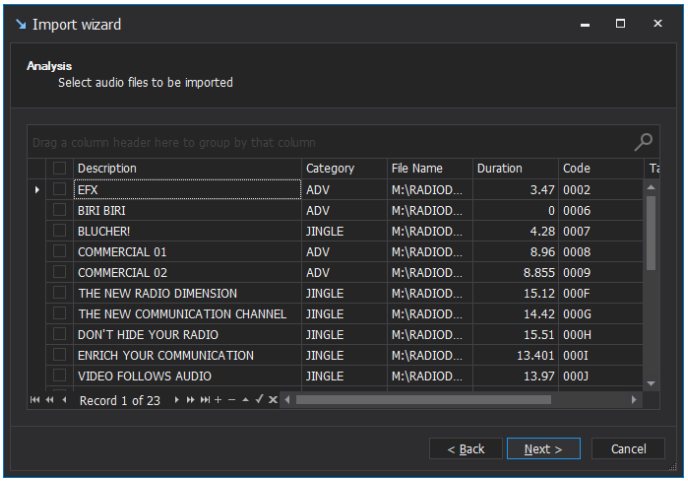
Append, Delete, Edit, End Edit, Cancel Edit.

8.7 IMPORT WIZARD

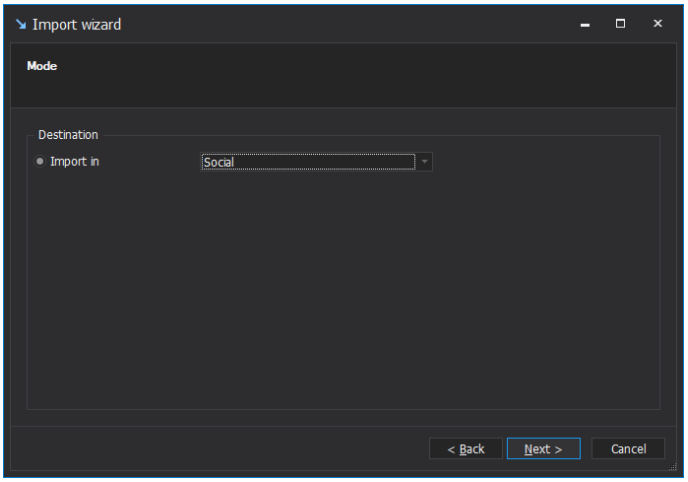
Import Wizard allows you to import audio with their metadata from one XRadio system to another. This tool is connected to the *Export to folder* (paragraph 3.3.C) and *Export Wizard* (next paragraph) tools.
Run Import Wizard and click [*Next>*]



Click [..] in *Metadata import file/s* to open the browser and select the **DJProXMLExport.xml** file previously generated by the Export tool, then click [*Next>*]



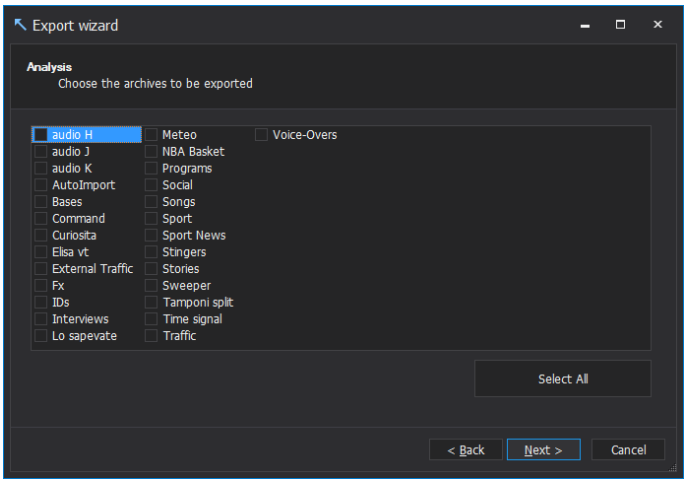
Select the items you want to import from the list and click [*Next>*]



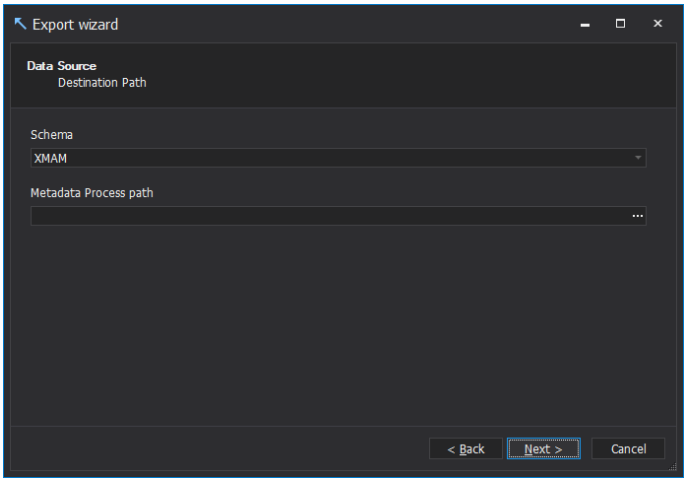
Select the destination table in *Import in* menu and click [*Next>*] to start the import.

8.8 EXPORT WIZARD

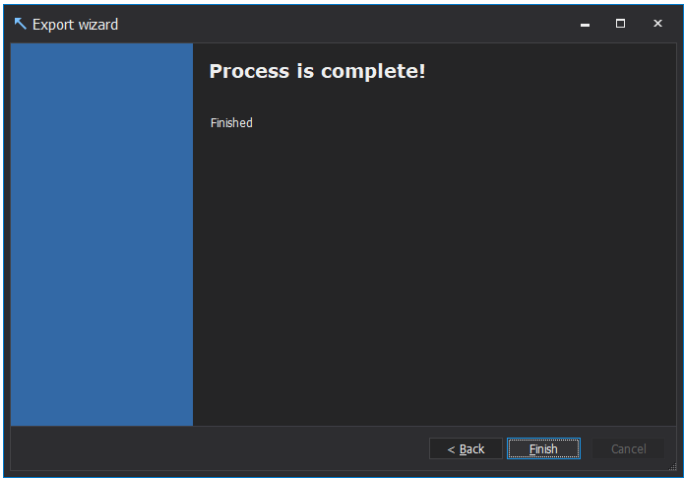
Export Wizard is a tool that allows you to export the whole content of an audio table into a folder. All the metadata of the exported audio will be saved in **DJProXMLExport.xml** file into the same folder.
Run Export Wizard and click [*Next>*]



Select the tables you want to export and click [*Next>*].



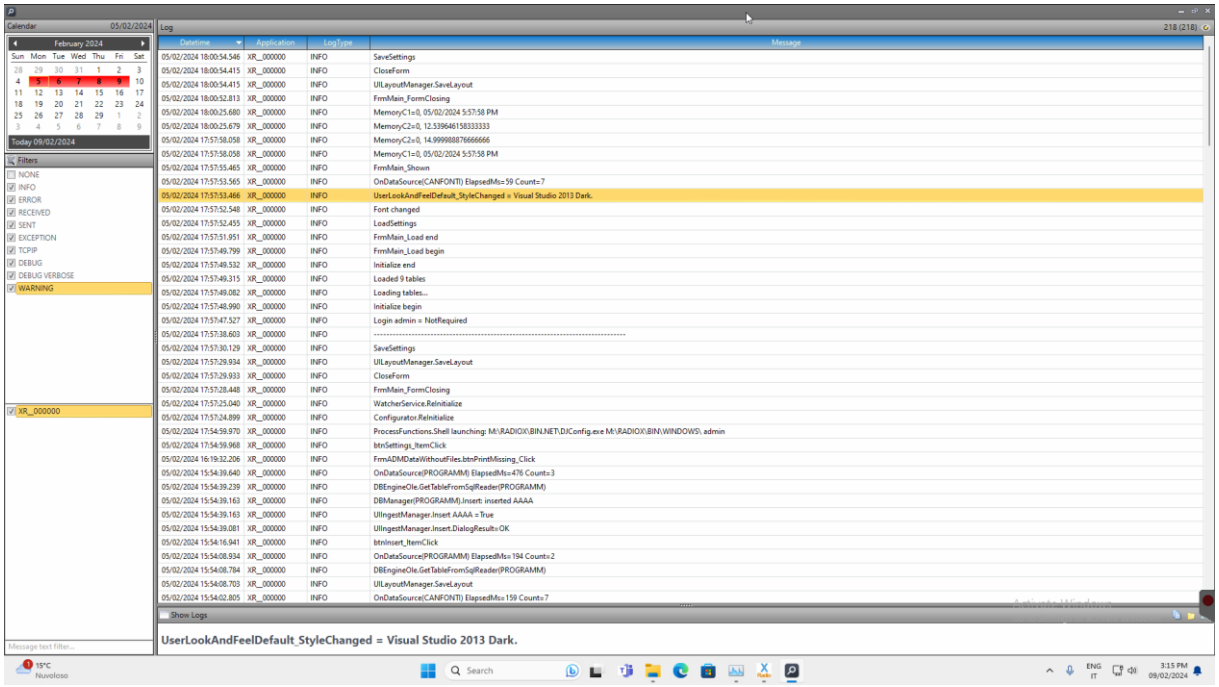
Click [...] in *Metadata Process path* and select a folder where the tool must export the data, then click [*Next>*].



Click [Finish] to close the Wizard.

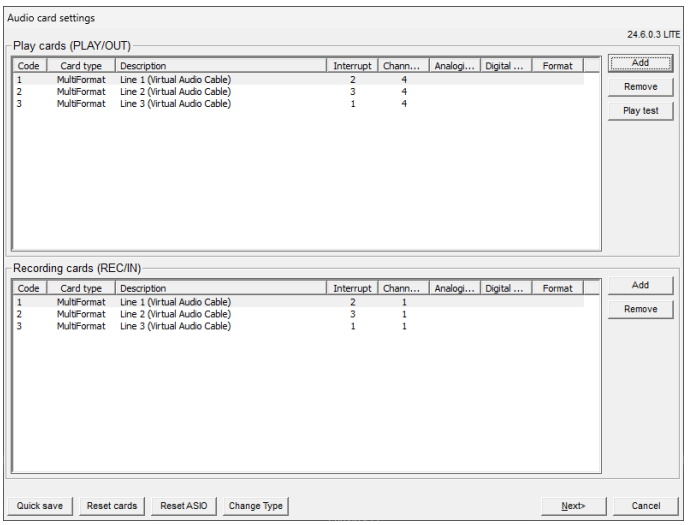
8.9 LOG VIEWER

Log Viewer is a simple tool that allows you to check the operations done by the software and the users, day by day.

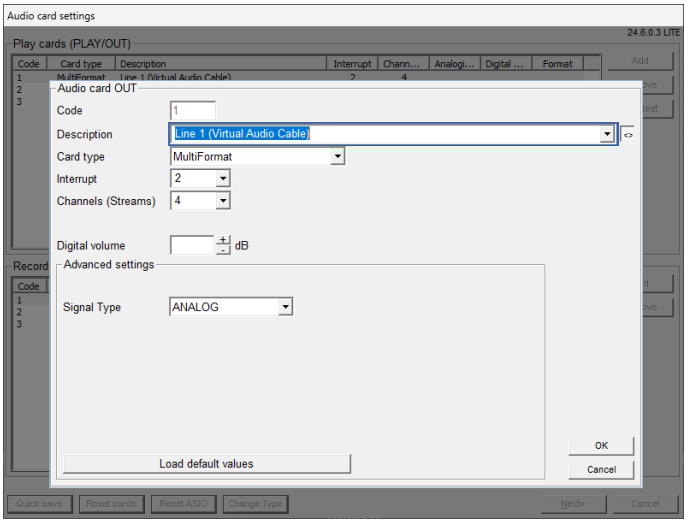


8.10 AUDIO CARDS CONFIGURATION

If you need to configure which local input and output devices you want to use in XRadio, you can run the **Audio Cards configuration**.



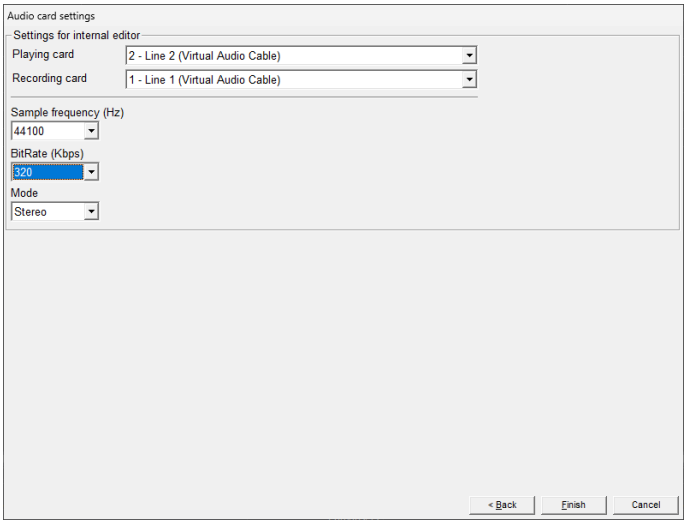
Click [*Add*] in the *PLAY/OUT* or in the *REC/IN* section to insert a new device.
If you want to delete a device, select it and click on [*Remove*].
Double click on an item to modify its parameters.



In the insertion/editing mask, open the *Description* menu to choose the device you want to use.
The default *Card type* is "Multiformat", it allows XRadio to import/play almost any different audio format, while "Windows DX" can manage only MPG, MP2, MP3 and WAV audio files. The other card types are related to old sound card models.
Digital volume allows you to lower the device's audio level: this parameter can be useful when you are not using an audio mixer or when the sound card does not have its own control panel.

The other parameters are automatically set by the software.

In the main page, click [*Next>*] to move to the *Settings for internal editor*:



Here you can set which output (*Playing card*) and input (*Recording card*) Xradio must use for its internal audio editor and player. The list in the menu is related to the outputs and inputs you have set in the previous page of the audio configurator.

Once you selected the devices, you can set which audio format XRadio must use during the import and recording of a new audio.

Click finish to close the configurator and save the changes.

8.11 SETTINGS

Settings application collects and manages all the parameters and configurations of each application of XRadio system. You can run it also by *Options* in the Menu bar.

Many of the settings you find in this configurator are related to specific situations or are the result of customizations requested by various customers over time. In this user guide we illustrated the most common and most useful functions that can be activated by any type of customer that is using the program.

9. ADVANCED FEATURES

9.1 SERIES

In most of the audio tables, you are provided with a function to create a series of items identified by a particular date or day of the week. Songs and Traffic tables are not provided with this function.

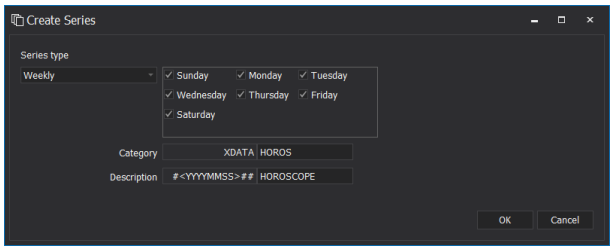
9.1.A HOW TO CREATE A SERIES

Click on the *Create Series* button in the Toolbar to create a Series in the selected table, or right click into the table and select *Create Series* from the context menu. The items of the series can then be programmed using their *Rotation Category*. XRadio, or Digiware, will choose the right file to be transmitted according to the scheduled day.

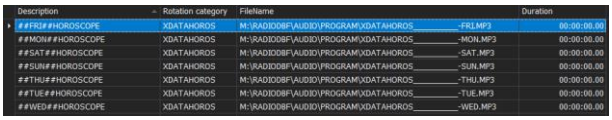
There are two types of Series: *Weekly* or *Monthly*.

WEEKLY SERIES

by choosing the Weekly type, you can insert an event different for each day of the week. Select the days of the week for which you want to create an event; in the *Category* field, enter an identification code for the Series; in the *Description* field, enter the description that will identify the Series. Click *OK* to confirm and create as many items as the selected days. At this point you can import the audio into each item.



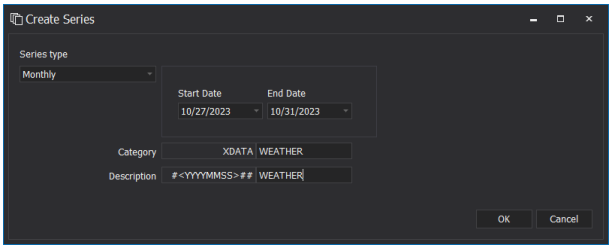
Example: If you want to create the HOROSCOPE Series with a different file for each day of the week, you can enter *HOROS* (identification of Horoscope) in the **Category** field and *HOROSCOPE* in the **Description** field, by selecting all days of the week.



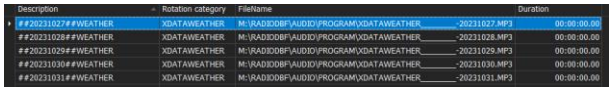
Once you have confirmed with *OK*, the program will automatically create the related items, where the days of the week are indicated by *MON* for Monday, *TUE* for Tuesday, *WED* for Wednesday, *THU* for Thursday, *FRI* for Friday, *SAT* for Saturday and *SUN* for Sunday.

MONTHLY SERIES

By choosing the Monthly type you can create a different item for each day in a specific period. Enter the *Start Date* and the *End Date* in the related fields; in the *Category* field, enter an identification code for the Series; in the *Description* field, enter the description that will identify the Series. Click *OK* to confirm and create as many items as the days in the selected period. At this point you can import the audio into each item.



Example: If you want to create the WEATHER Series with a different file for each day of the week, you can enter *WEATHER* (identification code) in the **Category** field and *WEATHER* in the **Description** field, setting 27/10/2023 as **Start Date** and 31/10/2023 as **End Date**.



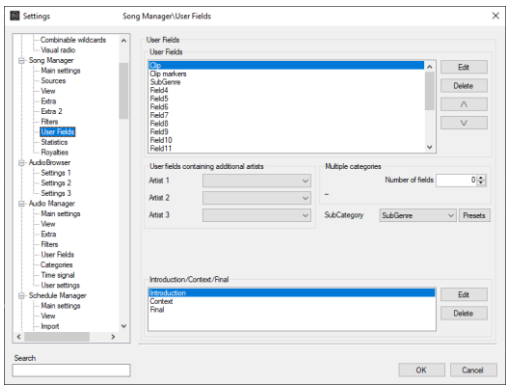
Once you have confirmed with OK, the program will automatically create the related items, where the date is expressed in *YYYYMMDD* format.

9.2 USER FIELDS

User Fields are a series of 20 user-customizable fields associated to any audio table in the Library. They allow for better categorization of items in audio tables and can be used in advanced Scheduling (especially in Digiware) for a deep selection of the songs and events.

To configure the User Fields for the Songs table, go to *Options→Settings* from the Menu bar and select *Song Manager\User Fields*. To configure the User Fields for the other audio categories, select *Audio Manager\User Fields*.

In this paragraph we focus on Songs User Fields



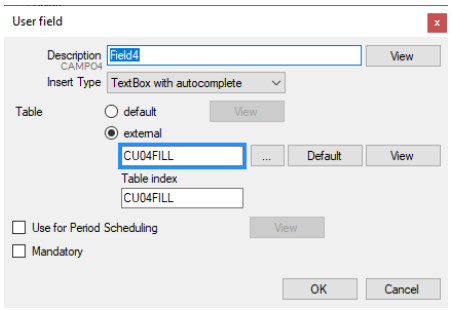
In the first box you have the list of the 20 User fields. The first three fields are already configured for the integration with the Visual Radio and for the SubGenre.

In the middle, you can set up to three different User Fields to manage the *additional artists*, the *multiple categories* and the SubCategory.

At the bottom, the three extra fields that manage the *Introduction/Context/Final* audio of the *Extra data* tab in the Songs table.

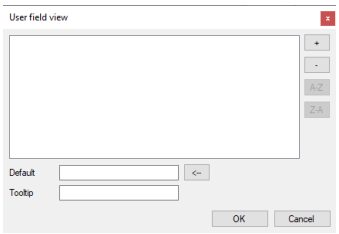
9.2.A HOW TO INSERT A USER FIELD

Select a free field into the list (eg.: *Field4*) and click *Edit* button to open the editing mask



Write a Description for the new field (e.g.: *Voice*) an select an Insert Type in the drop-down menu.
TextBox: simple text box
TextBox with autocomplete: when you write in this box, the program suggests the data to insert based on those already entered previously in the same field
Single-selection list: drop-down list where you can select only one item.
Multiple-selection list: list where you can select more than one item.

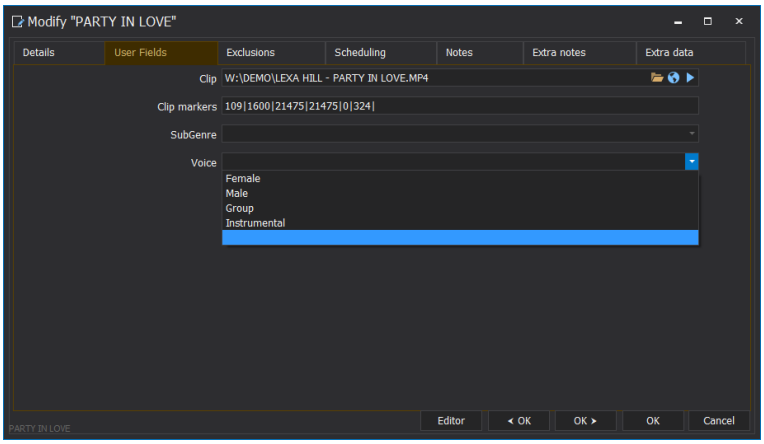
If you select *TextBox* or *TextBox with autocomplete*, you can click OK to confirm and exit.
If you select *Single-selection list or Multiple-selection list,* you must insert the items into the list.
For example, select *Single-selection list* and click the *View* button



Click the *[+]* button to add a new item
Once you inserted all the needed items, you can set one of them as the *Default* value any time you will insert a new song.
You can also associate a *Tooltip* to each item, by selecting it and writing in the related field
Click *OK* to confirm.

For example, insert *Female*, *Male*, *Group* and *Instrumental* in the *Single-selection* list and close the Settings by confirming all changes.

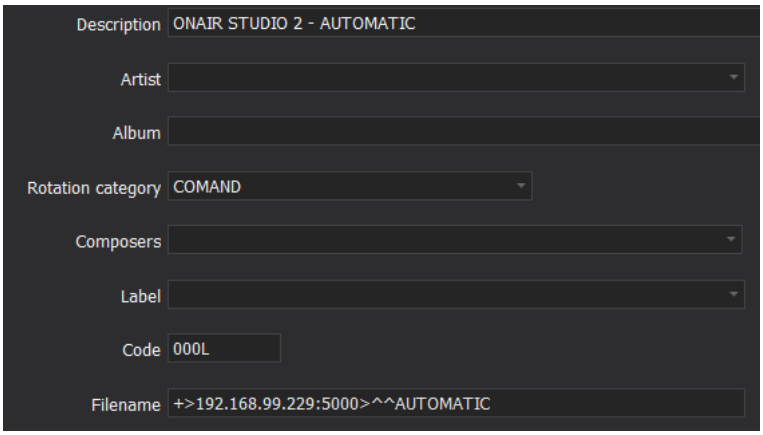
When you open the editing mask of a song, in the *User Fields* tab you will find the new field:



9.3 COMMANDS AND SCRIPTS

Commands is a special category of Xradio Library, where the user can create and manage a wide range of commands that can be sent by OnAir through RS-232, TCP/IP, UDP, HTTP or GPIO and used to remotely command other programs or devices. The commands, like any item of the other audio categories, can be scheduled or manually inserted into OnAir playlist.

You can also manage some commands, called SCRIPTS, to make the OnAir itself (or a different OnAir that is running on another PC) execute specific actions.



To create a new command, open the *Commands* table, insert a new item, write a *Description* and, in the *File Name*, write the command string.

In the following part of the document, we will explain how to write the command strings for each protocol and we will provide a list of the most used scripts.

9.3.A RS-232

By default, OnAir sends a RS-232 COMMAND through the COM port that has been previously set in the *Split→Serial Port* section of OnAir Setup.
Command string is in text format.

Example: XA1#/

If, on the other hand, you want to send particular characters, then use the syntax of the ASCII code for each character to be sent, where each number representing a character is enclosed in square brackets.

Example: [240][2][6][50][52][247]

NOTES:
- OnAir keeps the COM port open for exclusive use until the program is open.
- OnAir can open only one COM port.

9.3.B TCP/IP

A TCP/IP command string starts with the **$** character.
By default, OnAir sends the command to the IP (Server) and Port that have been previously set in the *Extern→TCP-IP* section of OnAir Setup.

Example: $TA

Alternatively, you can set a different IP and port number directly in the command string: start the command with **$}**, followed by the IP address and port number.

Example: $}10.0.127.62:1327>FE000000062D0441581702184FFF

9.3.C UDP

A UDP command string starts with the **+>** characters, followed by the IP address and Port number.

Example: +>192.168.99.88:15001>FE000000021C01C9B0FF

9.3.D HTTP

A HTTP command string starts with **^^HTTPGET** followed by the http string enclosed in round brackets.

Example: ^^HTTPGET(http://192.168.85.117:8090/BassWrapper/REST/LoadMacro?name=ADVON)

NOTE: OnAir can manage HTTP command strings only if, in the *On-Air\Communications\Communications 1\HTTP* section of the OnAir Setup, you activate the *Enable* parameter

Please contact Axel Technology's Support Team if you need more info about this matter.

9.3.E SCRIPTS

Scripts are particular instructions used to make OnAir perform specific actions. If associated to a TCP or UDP command, they can send the instructions to another OnAir playout. The command string starts with **^^**.

```
Example 1: ^^STARTNEXT
Example 2: +>192.168.99.9:5000>^^STARTNEXT
```

Here below a list of the most common scripts:

^^STARTNEXT: stops the item on the air, with fade, and starts the next one. It corresponds to pressing the PLAY button on the OnAir window.

^^STOP: stops the item on the air, with fade. It corresponds to pressing the STOP button on the OnAir window.

^^AUTOMATIC: sets OnAir in AUTOMATIC mode. It corresponds to pressing the AUTO button on the OnAir window.

^^MANUAL: sets OnAir in MANUAL mode. It corresponds to pressing the MANUAL button on the OnAir window.

^^ADVAUTOMATIC: sets the OnAir Advertising management in AUTOMATIC mode. It corresponds to pressing the AUTO button on the Advertising panel in the OnAir window.

^^ADVMANUAL: sets the OnAir Advertising management in MANUAL mode. It corresponds to pressing the MANUAL button on the Advertising panel in the OnAir window.

^^MONITOR(1): stops the OnAir playout and plays the external audio feed ingested to the MONITOR IN.

^^MONITOR(0): stops the playout of the external audio feed and resumes the playout of the playlist by setting the AUTOMATIC mode.

^^GPIOUT(0,255): closes all the OUT contacts of the GPIO card that is specified in the OnAir Setup.

^^GPIOUT(0,0): opens all the OUT contacts of the GPIO card that is specified in the OnAir Setup.

^^GPIOUTPIN(x,y): opens/closes a specific OUT contact of the GPIO card that is specified in the OnAir Setup. The first value inside the brackets must be set with the OUT number (1 is the first OUT, 2 is the second,…), while the second value can be 0 (on) or 1 (off).

```
Example 1: ^^GPIOUTPIN(1,0)          OUT 1 ON
Example 2: ^^GPIOUTPIN(1,1)          OUT 1 OFF
```

^^GPIRESET: reinitializes the communication between OnAir and the GPIO card.

^^GPIDISABLED: interrupts the interaction between OnAir and the IN contacts of the GPIO card set in OnAir's configuration.

^^GPIDISABLED(s): interrupts the interaction between OnAir and the IN contacts of the GPIO card for a certain number of seconds set into the brackets.

^^GPIENABLED: restores the interaction between OnAir and the IN contacts of the GPIO card set in OnAir's configuration.

^^GPIOUTDISABLED: interrupts the interaction between OnAir and the OUT contacts of the GPIO card set in OnAir's configuration.

^^GPIOUTENABLED: restores the interaction between OnAir and the OUT contacts of the GPIO card set in OnAir's configuration.

^^OPENAUDIOCARDS: resets the drivers of the sound cards associated to OnAir.

^^CLOSEPROGRAMM: closes the OnAir playout.

^^FORCEREBOOT: forces the reboot of the machine.

^^SHELL(): this command, associated to an argument, can run a program or open a file

```
Example: ^^SHELL(C:\MYPROGRAM.EXE)
```

9.3.F MULTIPLE COMMANDS

It is possible to create a single string with more than one command, separated by the **|** (pipe) character. OnAir will execute the instructions in sequence, as set in the string.

For example, if you want to create a command that sets the OnAir in MANUAL mode and runs a batch file, the string will be:

```
^^MANUAL|^^SHELL(C:\TEST.BAT)
```

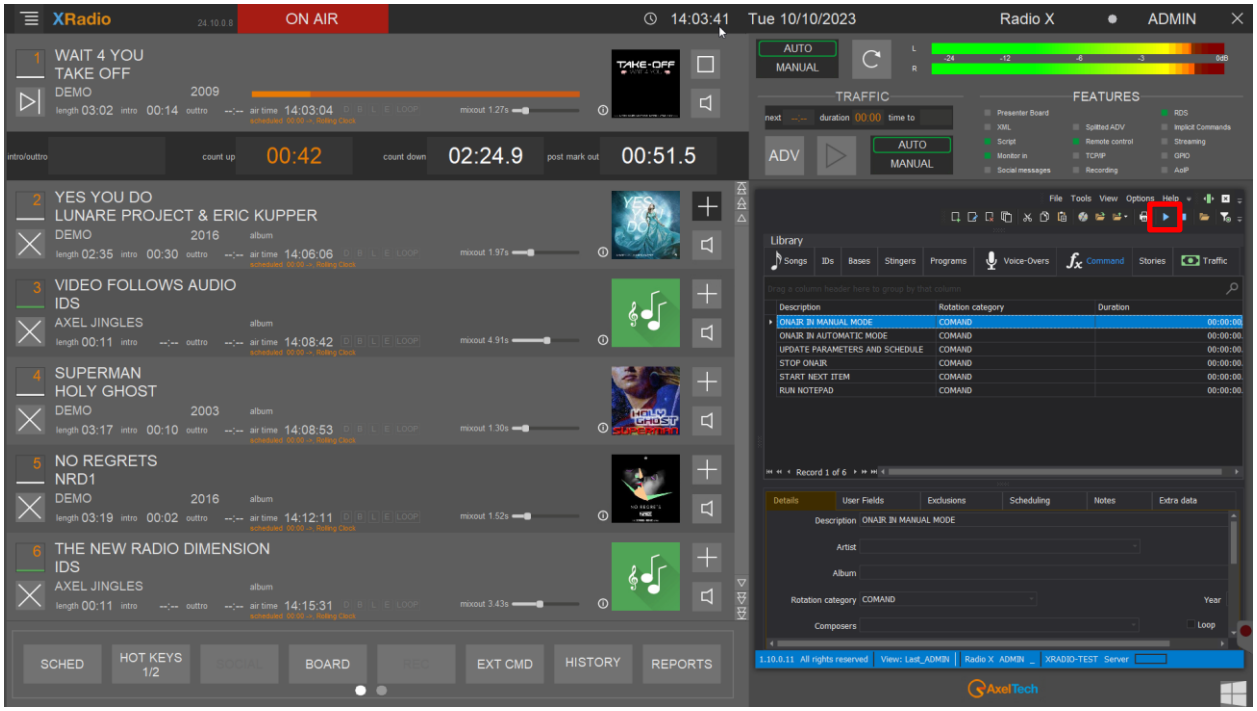
In this way, you can create command strings by mixing scripts with TCP/IP, UDP, HTTP, RS-232 commands.

9.3.G COMMAND EXECUTION METHODS

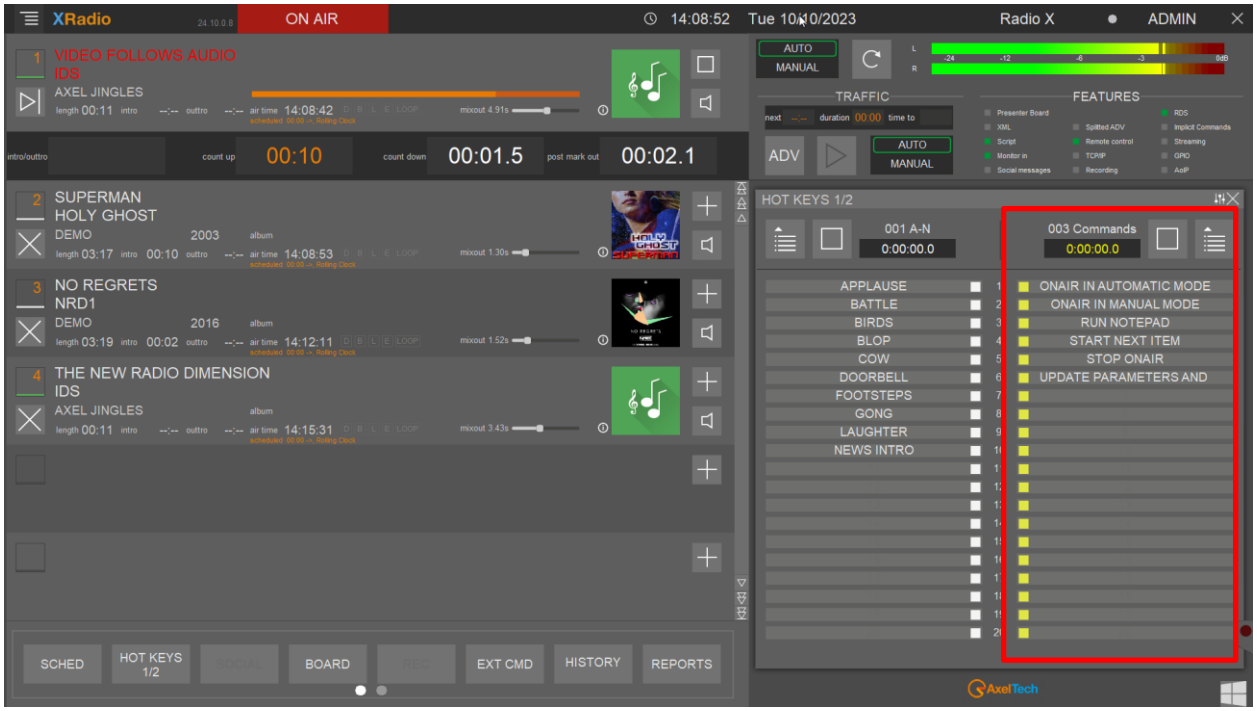
As we have already written above, the commands can be scheduled or entered manually in the playlist, like an audio of any other category, and the OnAir playout will execute them according to the playlist.

There are two other alternative ways to execute commands:

The first one is to open the COMMAND table from OnAir, select the command you want to execute and press the PLAY button for the preview on the bottom right, and the command will be immediately executed.



The second one is to create one or more Keyboards, by associating a command to each button (see the paragraph for the Hot Keys management). Then, in the OnAir panel, click on the *Hot Keys* button and load the Keyboard with the commands. By clicking on a button, the related command will be immediately executed.



9.4 HOW TO SEND SONG INFO ON RDS AND STREAMING

OnAir can interface with *Axel Technology*'s RDS encoders and transmit the information of the audio on the air to the Radio Data System (RDS).

Below, the instruction on how to set both XRadio and the RDS device to send the song info on RDS.

9.4.A ONAIR SETUP

First, you must configure the OnAir playout so to generate an XML file with the info of the audio on the air.
Open the OnAir Setup and, from the tree menu on the left, select *On-Air→Now Playing* and set the following parameters:

Now Playing: set it on *4 – XML*

Multiple XML: set the path and name of the XML file where the OnAir will write the info (e.g.: \\192.168.99.40\J\PLAYLIST.XML)

ATTENTION: it is mandatory for the RDS data send that the folder where the OnAir is writing the file is a shared source on the network, it cannot be a subfolder of a shared source.

Categories allowed to write the IEM title: in this box, select what are the audio categories that can write their info on the XML file

Replacement text for categories not allowed to write the title: enable it, select the *text* option and write a default text that will be used when an audio category that has not been selected in the "*Categories allowed to write the IEM title*" box is on the air

RDSE3/web compatibility mode= this parameter is important for managing the info properly when and advertising cluster is on the air. If not enabled, the RDS will show the info of the next item into the playlist when the advertisement is playing.

Furthermore, it is possible to set other optional parameters.

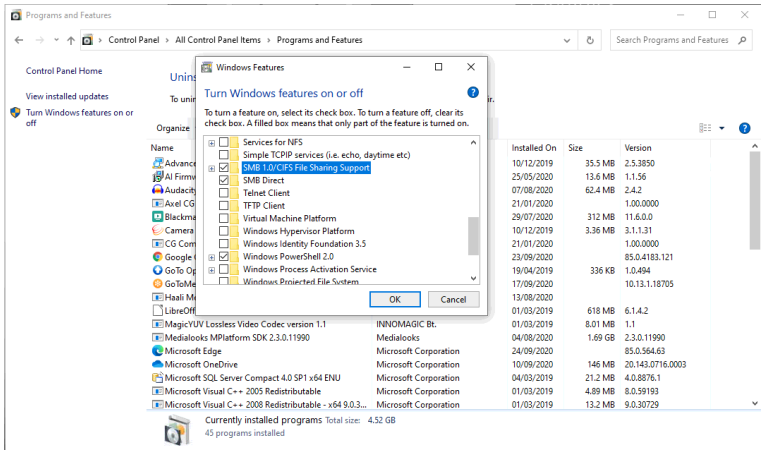
Replace XML escape characters with their HTML code: if in your metadata there are songs, or other audio, with the title/artist/description containing special characters like the **&** (ampersand), you need to enable this parameter in order to manage these data correctly on the RDS.

Replacement text during local advertising: set an alternative text to be used when OnAir plays the Traffic.

Replacement text during national advertising: useful in Radio systems with split Traffic areas, you can set an alternative text to be used when OnAir plays the non-splitted Traffic clusters.

9.4.A RDS ENCODER SETUP

Before proceeding with the Encoder setup, be sure that in the PC where XRadio is saving the XML file with the info the *SMB File Sharing Support* feature is enabled: in Windows 10, open the Control Panel, select *Programs and Features* where you will find, on the left menu, *Turn Windows features on or off*. In the dialog box that appears, check *SMB 1.0/CIFS File Sharing Support* and click on OK to confirm.



Now you can start configuring your RDS device to read the XML file generated by OnAir.

Access the setup interface by writing the IP address on a web browser (Google Chrome, or Mozilla Firefox) and setting the administrator's username and password of the device.
From the menu on the left, go to *Setup* → *General Setup* and scroll down the page until you find the section called "SMB/SAMBA Share Settings", there you must fill all the parameter:

- **Active** must be enabled in order activate the communication between the device and the Pc where the XML file is saved.

- In **Hostname IP / Url** write the IP address or Network name of the Pc where the XML file is saved. No backslash (\) needed before the address or name.

- In **Smb/Samba Share** write the name of the shared folder where OnAir is saving the XML file.

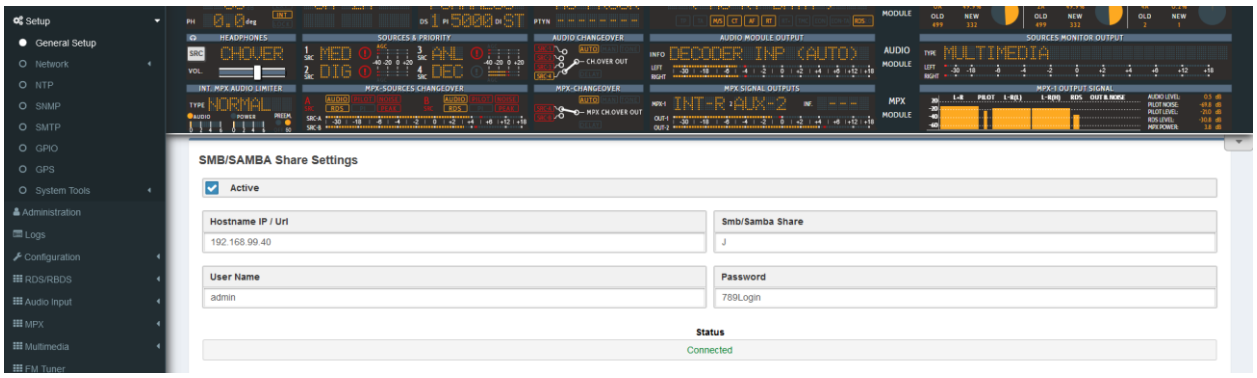
ATTENTION: this parameter is case-sensitive, you must write the name of the shared folder respecting small and capital letters. Moreover, the XML file must be saved directly in the shared folder; it cannot be in a subfolder, like stated in the previous chapter.

- In **User Name** write Windows user name of the Pc where OnAir is saving the XML file.

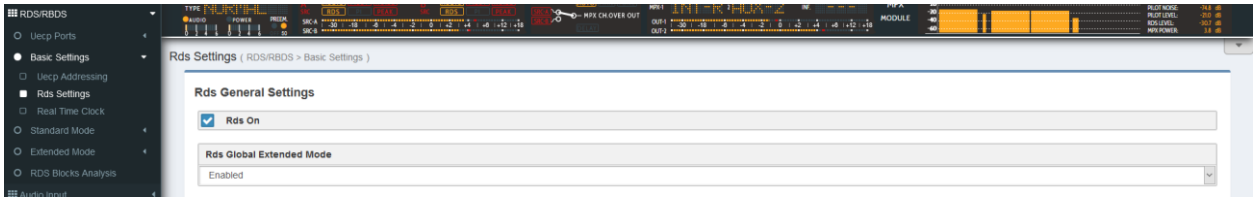
- In **Password** write the password associated to the User Name. Mandatory, the device will not accept a Windows user name with no password set.

***ATTENTION**: this parameter is case-sensitive, you must write the password respecting small and capital letters. Moreover, the password must be letters and numbers only: no spaces, punctuation, or special characters.*

If all the parameters are set correctly, the **Status** will turn to *Connected*.



From the menu on the left, go to *RDS/RDBS → Basic Settings →Rds Settings* where you will find the section called "Rds General Settings": enable the **Rds On** parameter and set the **Rds Global Extended mode** on *Enabled*.

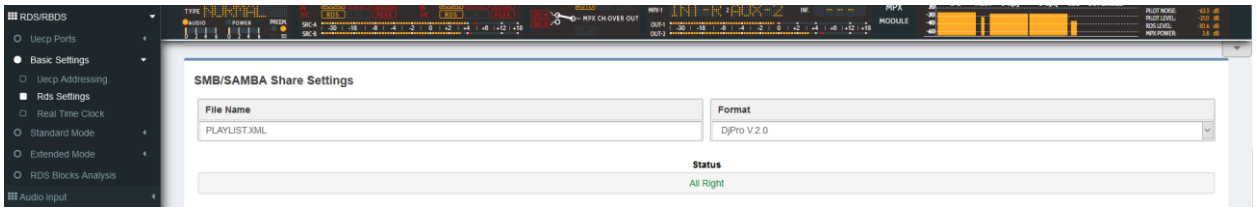


Scroll down the page until you find the SMB/SAMBA Share Settings section and set the parameters:

- In **File Name**, write the name of the XML file. This parameter is case-sensitive.

- In **Format**, select the format according to your playout. For **Djpro OnAir**, the right value is *DjPro V.2.0*.

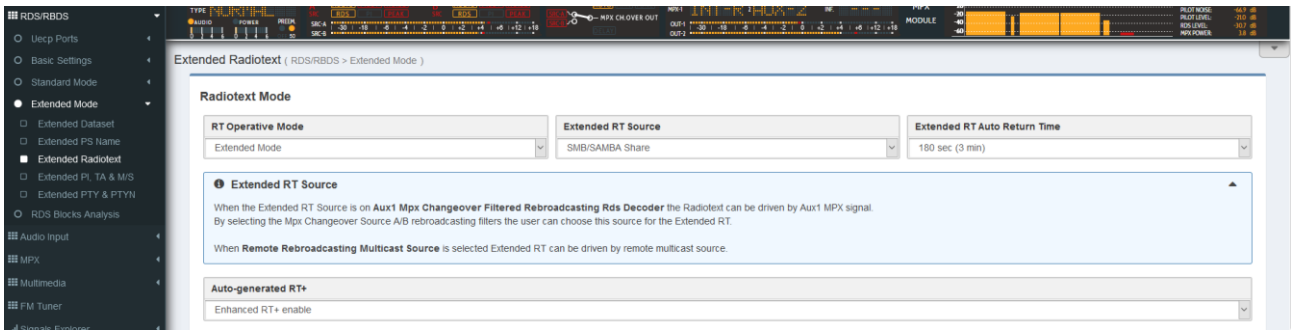
If the parameters are set correctly, the **Status** will turn to *All Right*.



From the menu on the left, go to *RDS/RDBS → Extended Mode →Extended Radio Text* where you will find the section called "Radiotext Mode": set the **RT Operative Mode** on *Extended Mode*, and the **Extended RT Source** on *SMB/SAMBA Share*.

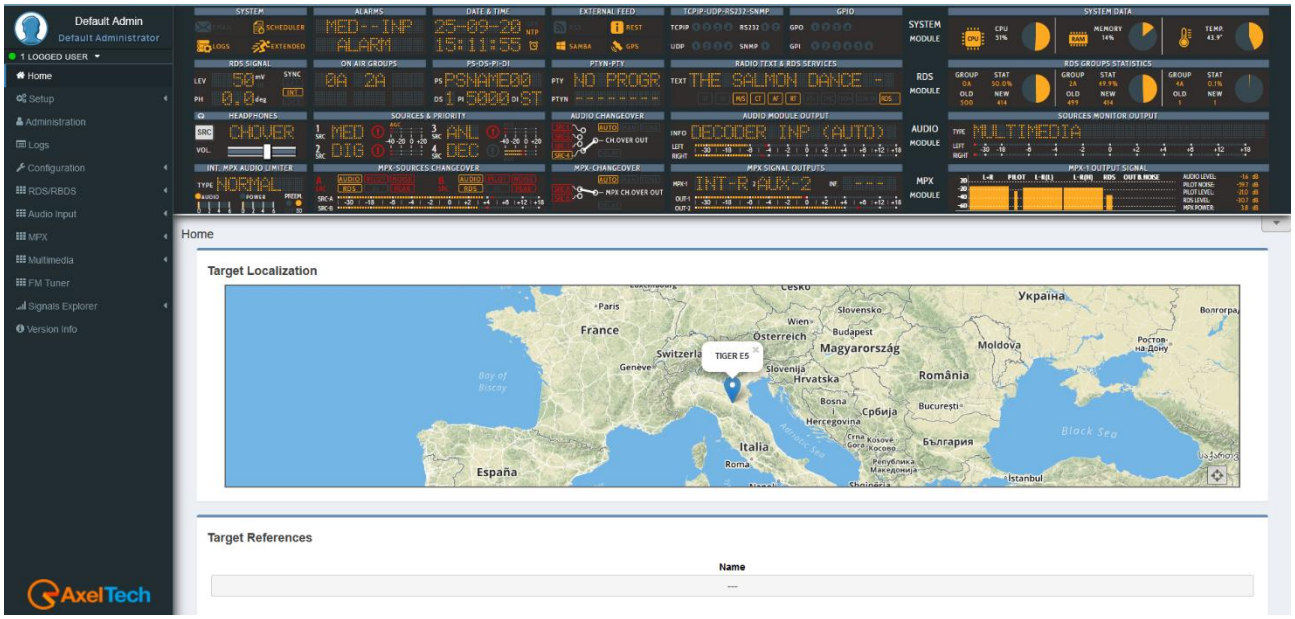
The Extended **RT Auto Return Time** is optional, but if you set the value to, for example, *180 sec*, the info of the song on the air will appear for three minutes only, then it will be replaced by the default text that has been set in the OnAir Setup.

Set Auto-generated RT+ on *Enhanced RT+ enable* to show the song info on the radio devices that manage the RT+ mode



If you want, you can also show the song info on the PS, go to *RDS/RDBS → Extended Mode →Extended PS Name* and set the parameters as for the *Extended Radiotext*.

Once you have set all the parameters, if everything is working well, you will see the song info scrolling from right to left on the *RADIO TEXT & RDS SERVICES* panel and, if you configured the dynamic PS too, on the *PS-DS-PI-DI* panel



9.4.B STREAMING SETUP

If you want to send the song info to your web site or mobile application using a third-party software such as EdCast, you can select *5 – Single line* in the *Now Playing* parameter and, in the *File* parameter, set a TXT File (e.g.: M:\RADIO\ONAIR.TXT)
The change of *Now Playing* parameter from 4 to 5 will not affect the *Multiple XML*, so OnAir can generate a TXT file for the streaming encoder and a XML file for the RDS encoder.

If instead you use Axel Technology's **DJStreamer** to manage audio streaming, it reads the same file used by the RDS encoders, i.e. the one set in *Multiple XML*.

9.5 SOURCES AUTO-CHANGE FEATURE

9.5.A WHAT IS SOURCES AUTO-CHANGE?

In a system that has a Main Server and one or more backup servers, each XRadio workstation can continuously check the mapped drives associated to these servers (sources) according to a priority list order. If the first source in the list is available, DjPro uses this one as the Main Server. If a problem occurs on the communication with the Main Server, XRadio automatically switches to the second source in the list. Again, if the second source has a problem too, it will switch on the third source, and so on, up to the last source that usually is a local drive on the workstation.
XRadio must be always open if you want this feature to be operative. All the checks are performed in background, they don't affect the normal operations done by the user.

9.5.B HOW DOES IT WORK?

XRadio constantly checks the access to the mapped drives (usually, the M: drive). In case of Main Server failure, switch breakdown or a general failure situation, if XRadio recognizes the mapped drives are no longer available, it

automatically uses some DOS commands for unmapping the drives from the first source and maps them to the next available one.

9.5.C How Can The User Notice That The Main Server Is Down?

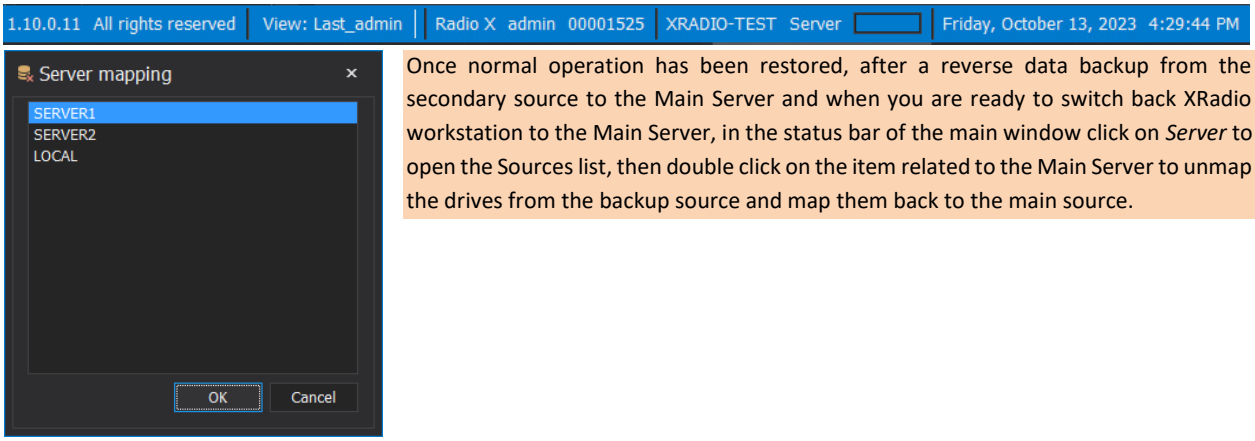


When XRadio is mapped to the Main Server, the "Source" circle that you find on the top bar is grey colored. When XRadio is mapped on another source, the "Source" circle changes its color, and a frame of the same color surrounds the screen.

Colors for the sources are set by default, but they can be customized.

9.5.D What To Do After XRadio Has Mapped On A Secondary Source?

When a fault happens, not due to human error, the only way to bring back the Radio station to the normal activity is to check the system and solve the issue. Generally, it could be necessary an IT Technician to find the issue and fix it.



Once normal operation has been restored, after a reverse data backup from the secondary source to the Main Server and when you are ready to switch back XRadio workstation to the Main Server, in the status bar of the main window click on *Server* to open the Sources list, then double click on the item related to the Main Server to unmap the drives from the backup source and map them back to the main source.

After this operation, the "Source" circle on top of the screen should turn grey and the frame around the screen should disappear.
If the data of the Main Server and the backup server are synchronized, you can do the switch back from where the OnAir PC playout is open and playing, it should not affect the operations since it is a real-time switch.

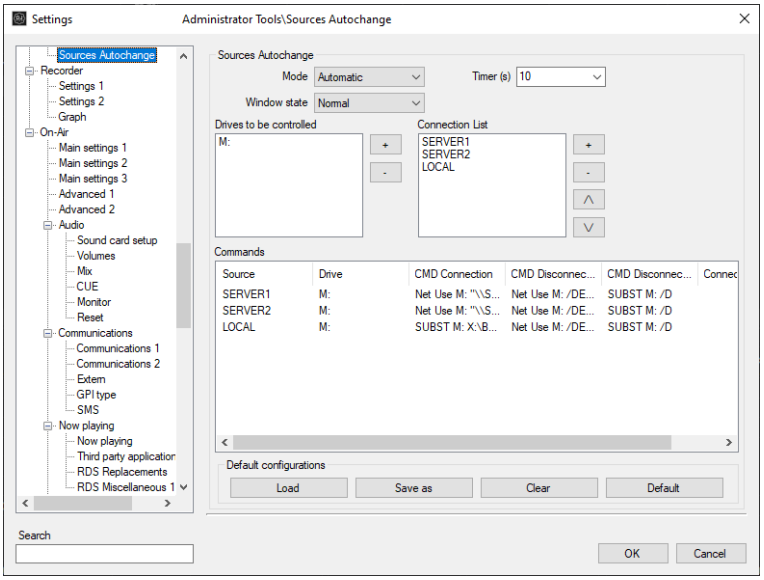
ATTENTION: XRadio does not automatically switch back to Main Server once it switches to another source. The switch back must be done manually, using the method mentioned above.

9.5.E How To Keep The Backup Servers Up To Date?

To always keep the backup servers updated, you can use professional sync softwares, such as InSync or ViceVersa, that allow to schedule a daily backup from the Main Server to the backup sources.

9.5.F How To Configure XRadio With Source Auto-Change

Go to *Options→Settings* from the Menu bar and select *Administrator Tools\Sources Autochange*.



Parameters to be set:
MODE: Automatic
TIMER (s): 10

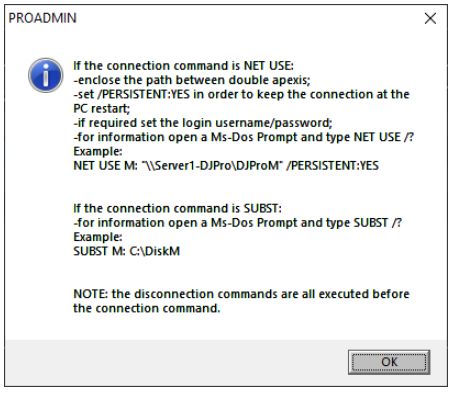
Configure a Source:
Press + in the "Drives to be Controlled" section. Select the Drive to control (usually it is M:\) and confirm.
Now press + in the "Connection List" side, where it is possible to configure all the available Sources. In the window that appears you need to insert the parameters for the connection of the new source.

In the picture below, an example for these parameters:



How to set the commands:
In *CMD Connection* you have to insert the command string for the connection. The command type can be "NET USE" or "SUBST", depending on the type of connection you need: *Net Use* is for mapping a Network drive, while *Subst* is for associating a drive letter to a local folder.

For a help the user can press the **?** button on the left side, and a quick guide on the commands appear:



Anyway, you can automatically set the commands using the "**…**" icon to browse the network or the local drives and directly select the folder.
CMD Disconnection 1 and *CMD Disconnection 2* are automatically set, but in case you need to insert them again, click on the round arrow icon and they will appear in the related fields. This two default Commands are needed for unmapping the source before mapping it with the command set in *CMD Connection*.
Press the *OK* button to save changes and close the window.

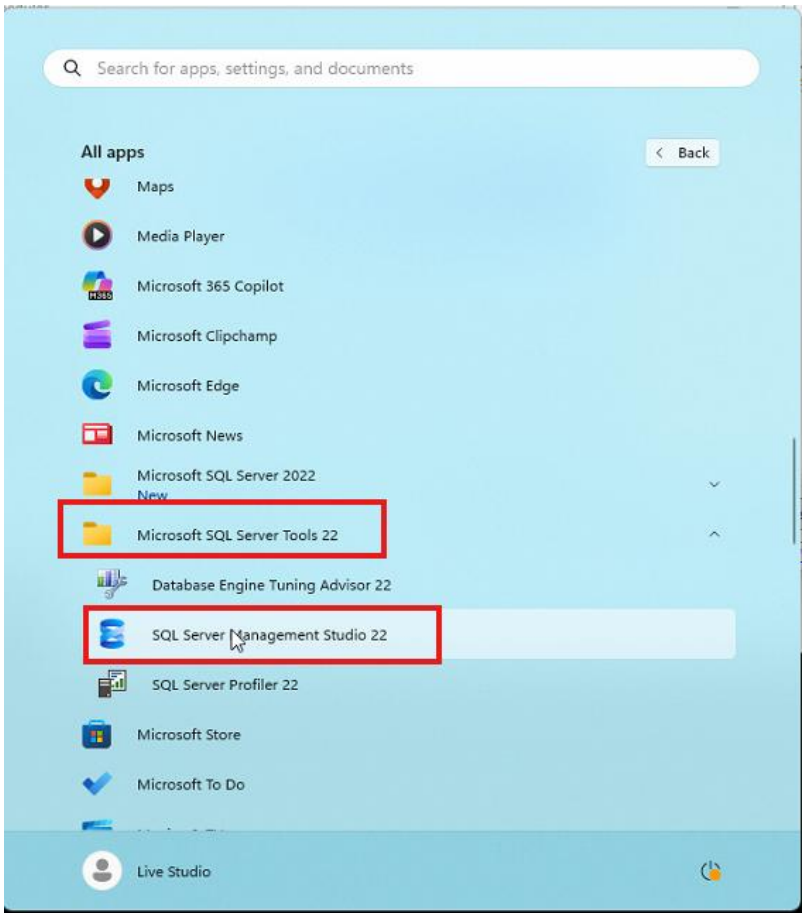
Follow the same steps to add all the other Sources for the Radio Station.

TIP: If you want, you can save the auto-change parameters into an .ACT file that you can use, for example, to load the same setup on another DjPro Client. You can find, in the "Default Configurations" section, the options for creating a new setup, loading an .ACT file and saving the current settings into an .ACT file.
When you install XRadio, you are also provided with some sample .ACT files that you can load from M:\RADIO\BIN\WINDOWS folder.

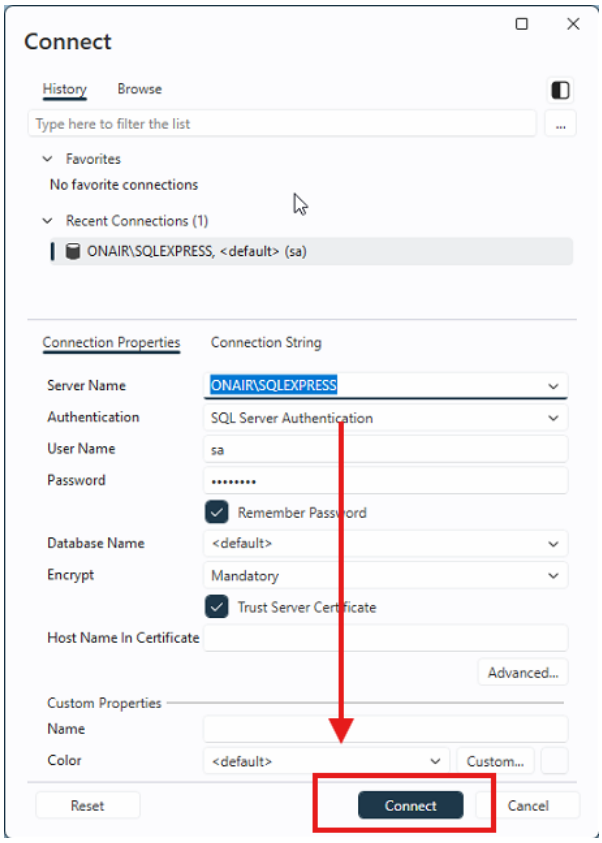
ATTENTION: the Source auto-change feature must be set for each XRadio Client, so the parameters must be configured in each workstation where you want to use it.

9.6 HOW TO BACKUP SQL DATABASE

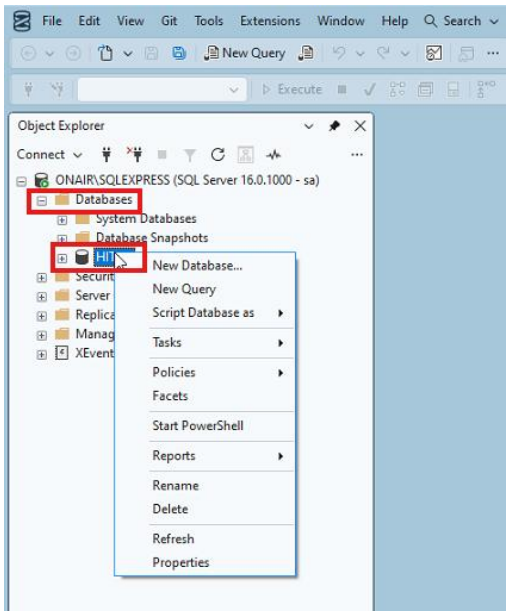
On windows app menu search for Microsoft SQL Server Tools and run SQL server management studio



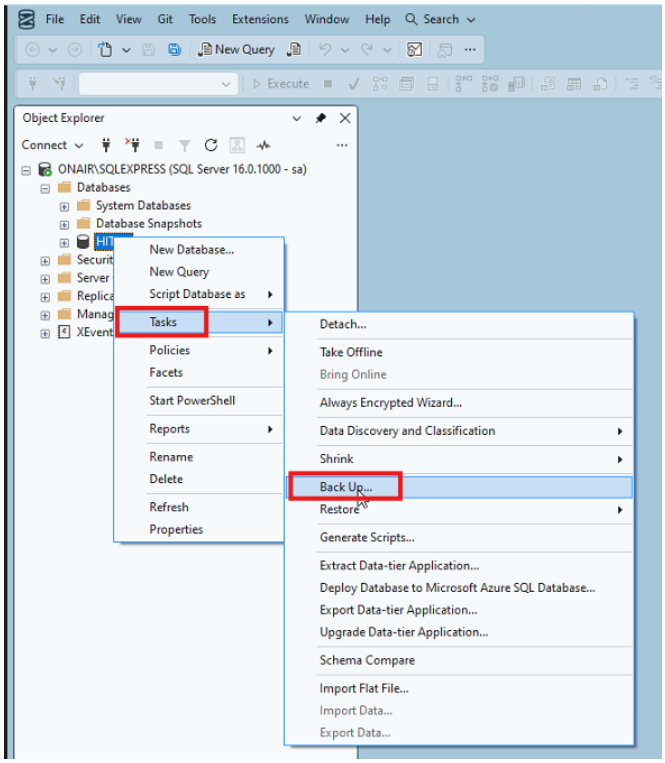
Click on CONNECT



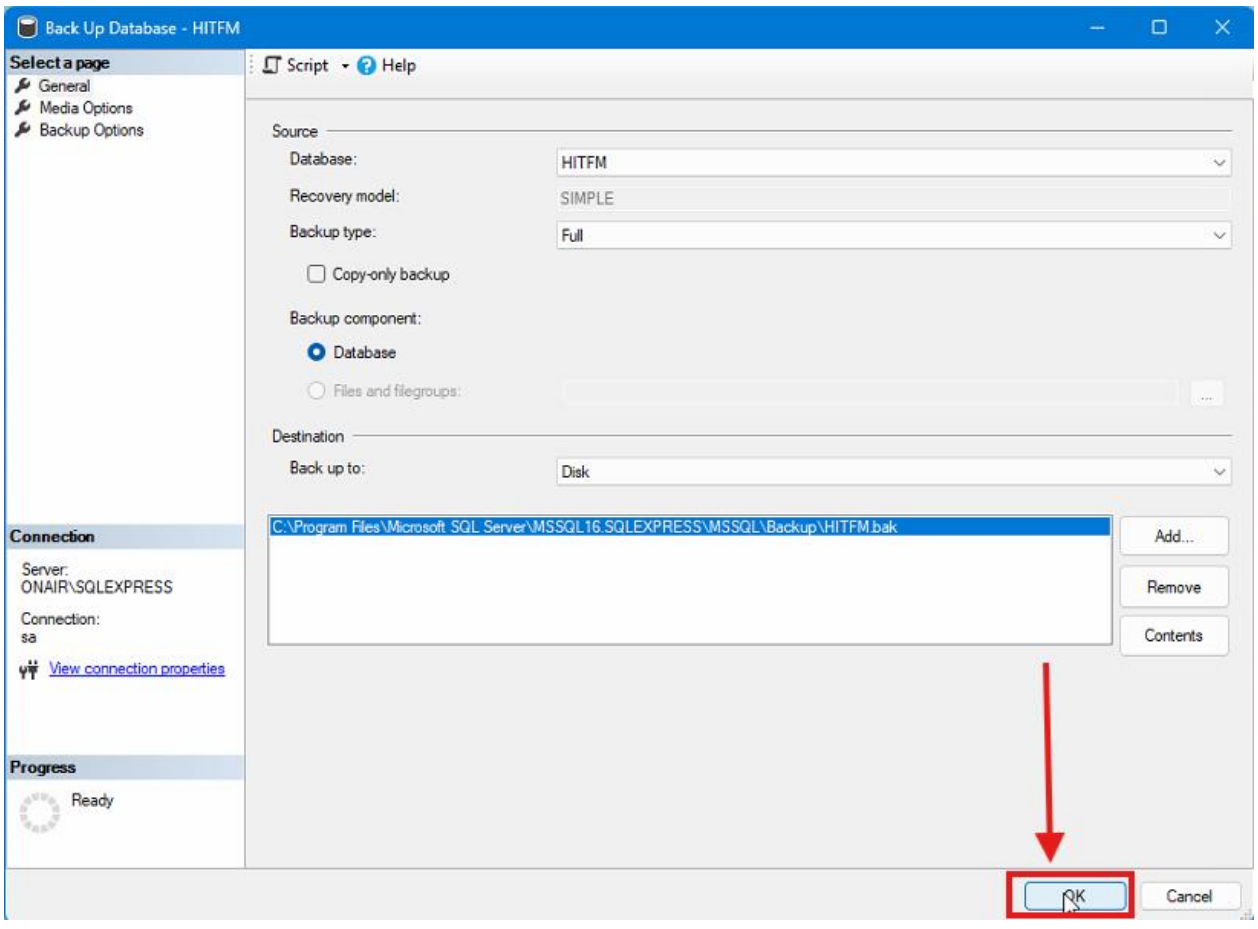
Open the folder Databases and right click on the database to backup



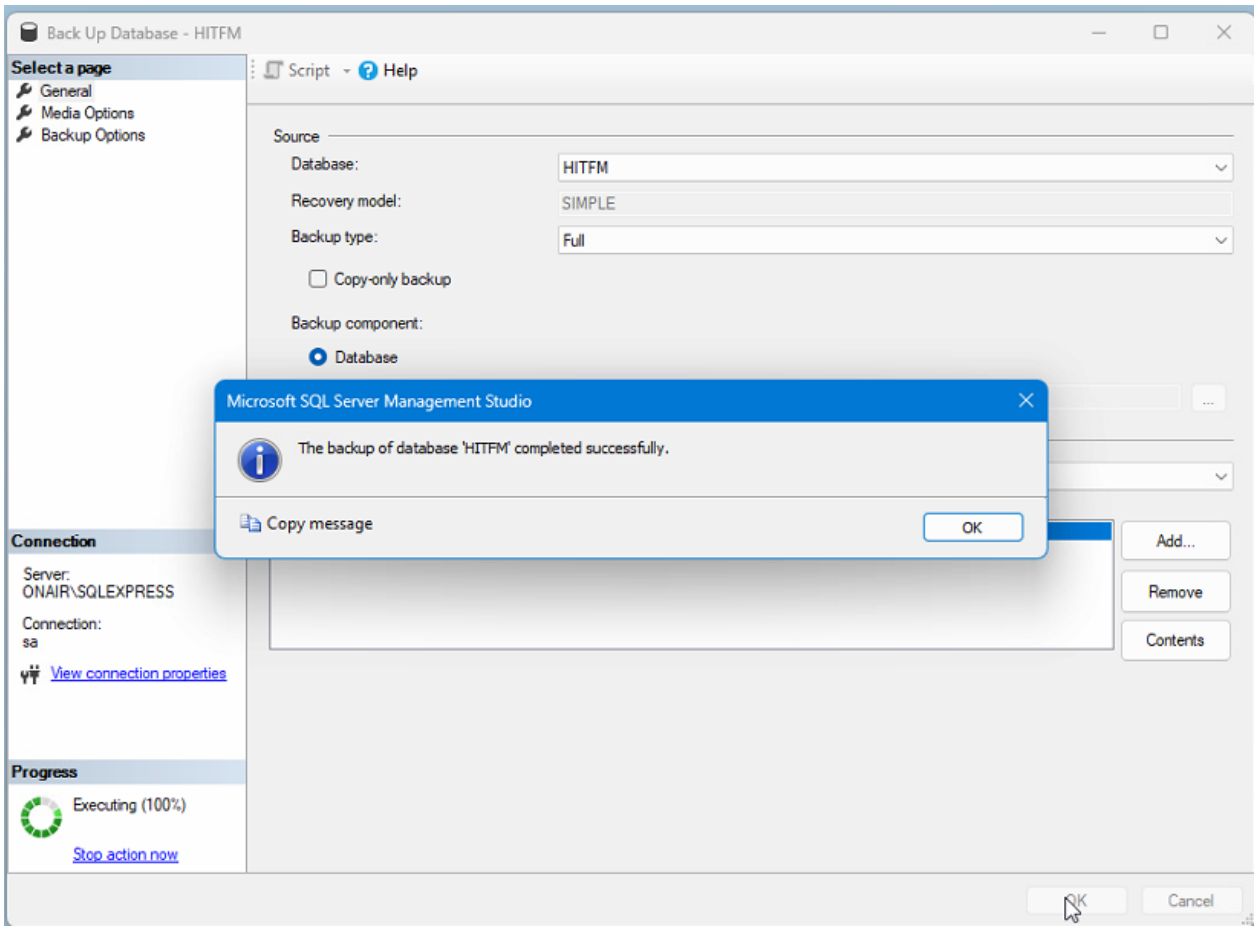
Move on Tasks and choose Backup


File Edit View Git Tools Extensions Window Help Search
New Query
Execute
Object Explorer
Connect
ONAIR\SQLEXPRESS (SQL Server 16.0.1000 - sa)
Databases
System Databases
Database Snapshots
New Database...
New Query
Script Database as
Tasks
Policies
Facets
Start PowerShell
Reports
Rename
Delete
Refresh
Properties
Detach...
Take Offline
Bring Online
Always Encrypted Wizard...
Data Discovery and Classification
Shrink
Back Up...
Restore
Generate Scripts...
Extract Data-tier Application...
Deploy Database to Microsoft Azure SQL Database...
Export Data-tier Application...
Upgrade Data-tier Application...
Schema Compare
Import Flat File...
Import Data...
Export Data...

Click on OK


Back Up Database - HITFM
Select a page
General
Media Options
Backup Options
Script
Help
Source
Database:
HITFM
Recovery model:
SIMPLE
Backup type:
Full
Copy-only backup
Backup component:
Database
Files and filegroups:
Destination
Back up to:
Disk
C:\Program Files\Microsoft SQL Server\MSSQL16.SQLEXPRESS\MSSQL\Backup\HITFM.bak
Add...
Remove
Contents
Connection
Server:
ONAIR\SQLEXPRESS
Connection:
sa
View connection properties
Progress
Ready
OK
Cancel

When backup will be done it will show a confirmation message



Click on OK and close SQL Server Management Studio

Go to the backup folder (default C:\Program Files\Microsoft SQL Server\MSSQL16.SQLEXPRESS\MSSQL\Backup the number highlighted in yellow could be different), copy the .BAK file and save it on a safe disk.