PLAYBOX
T E C H N O L O G Y

LISTBOX USER MANUAL

*(Version: **2.3**, March 2020)*

Current software versions:

ListBox Mega: 12184.0

This guide explains in detail all functionalities of the ***ListBox*** modules.

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Preface

Dear *PlayBox* customer,

Thank you for purchasing our product! We would like to assure you that you have chosen the most cost-effective and versatile TV automation system on the market. As always, we are trying to stay close to our customers' needs, making sure they all receive adequate support and satisfaction. Your opinion about our product is an exceptionally valuable source of information for us. The ease of working with the **PlayBox** products results mainly from the suggestions and comments of our current respected customers.

This manual is structured into several sequential chapters, each aiming to ease the installation, fine tuning, and use of our products. We hope that you will enjoy working with it, and we are anxiously looking forward to receiving your feedback.

Please, send your questions, suggestions, and assistance requests to:

support@playboxtechnology.com

Style Conventions

- File names, software, documents or terms are written in *italics*
    - The data is written in the *settings.ini* file.
    - The file is located in *C:\Program Files\DMT**AirBox***
    - For further information read *Shortcuts* reference book.
    - The *VTR* is controlled via *RS-422*.
- Direct quotations from the computer screen are presented as follows:
    - **Menu Items and commands**
    - ***Tab/Page names***
    - **Column names (i.e. in a playlist or another grid)**
    - *Field names, check boxes*
    - ***Buttons***
    - Screen readings are written in [square brackets]
    - **The keyboard keys are enclosed in <> signs**
    - *Terms are defined in the Glossary at the end of the manual*
- The arrows, used in the setting procedures mean as follows:
    - ➔ A menu item follows;
    - ⇨ A page(tab) name follows;
    - → A field name, a check box name, or a value name follows.

Except for arrows, you can distinguish between the relevant menu categories also by the styles, listed above.

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Introduction

GETTING STARTED

ListBox is dedicated to creating and editing **playlists**. It allows preparing playlists in advance for the **AirBox** module and playing them on-air later.

ListBox does not need any special workstation or platform.

Quick Start

- Launch **ListBox**;
- Right-click on the grid;
- Select **Add ➔ Media file;**
- Browse for the files you want to insert in the playlist and click on the **Open** button.
- Go to **File** menu ➔ **Save playlist as** and browse for the location to save your playlist to.
- Type some name for the playlist and press **Save**.

Congratulations! You have just created your first **PlayBox** playlist!

USER INTERFACE

The interface of **ListBox** is identical with the **AirBox** interface. It is designed like that for user's convenience. There are some differences, which are described in this section.

Playlist Control Buttons

These buttons provide access to the most commonly used playlist functions. All commands from the Toolbar can also be found in the Menu Bar.

Some particular buttons on the Toolbar will appear enabled or disabled, depending on the selection made.

The toolbar contains the following command buttons, shown in that order: **New** , **Open** , **Save**/**Save as** , **Save as daily** , **Append/Insert Element** , **Delete Selection** , **Clear Playlist** , **Move up/Move Down** , **Reset playlist** **Randomize** , **Properties** , **Trim** , and **Undo** Their functions are described below in the relevant menu sections.

Playback control and counters

The **Master Counter** shows the elapsed time of the current playout session. Pressing the **Stop** button resets the counter.

01:42:27:14

The **Clip counter** is situated under the master counter. It can operate in two modes: count-up and count-down mode. Just double-click on it to switch between them!

00:00:26:05

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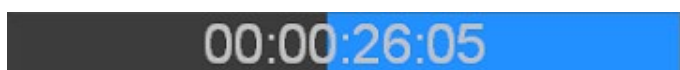
The playback control buttons are situated under the Clip counter:

- **Play** – starts the playback.

- **Stop** – terminates the playback.

- **Pause/Resume** – temporary interruption and resuming of the playback. The playback resumes from the same point on.

- **Next** – will stop the currently playing clip immediately and will switch to the next clip in playlist. This happens by a smooth cut without any sound or visual artifacts.

- **Return** is active only after a **Jump** has been executed. Use this button to return to the position before the last **Jump**.

- **Jump** – terminates the currently playing clip immediately and starts playing the selected one, regardless of its position in the grid.

- **Cue** – This button will interrupt the playback, and will pause at the first frame of the selected clip. You can also activate it by holding down the **<Ctrl>** key and pressing the **Jump** button at the same time. Use this to prepare a clip for playback, while showing its first frame on the output. Since this is a machine-and-decoder-dependent function, you might have to increase the *Cue Delay* time in the **Settings** dialog box (**Settings ➔ General ⇨ General ➔** *Cue delay*).

- **Fix overlapping** – press it to fix the overlapping issues in the playlist. The fixed time flags will be removed and the duration of the overlapping files will be truncated.

- **Fixed playlist start mode** **–** press it to see the start time of the clips in the playlist in relation to the start time of the playlist, which is defined in the **Current playlist** tab. Press the button again to see the start times of the clips in the playlist in relation the current system time.

Playlist Grid

This area is dedicated to playlist visualization. It looks the same as the *AirBox* Playlist Grid, but the grid headers are colored, so you can easily distinguish between *AirBox* and *ListBox.* The order of grid columns can be changed by drag-n-dropping them to the left or to the right.

You can control the columns to appear and their order in the grid from **Settings** menu ➔ **General** ➔ *Grid*.

		Duration	Type	Category	Title	Star	Notes	Location
▶	1	00:01:57:20	H.264 [1080p 25] (44 kHz)		9584	Background		D:\Media\...
▶	2	00:01:19:19	H.264 [720i 25] (48 kHz)		3998	Beach		D:\Media\...
▶	3	00;00;59;29	H.264 [1080p 29.97] (44 kHz)		2114	Clouds		D:\Media\...
▶	4	00;00;18;08	H.264 [1080p 29.97] (48 kHz)		16011 (1)	Clouds		D:\Media\...
▶	5	00;01;03;22	H.264 [1080p 23.97]		3581 (1)	Coastline		D:\Media\...
		00;00;33;03	H.264 [1080p 29.97]		11722	Graphic		D:\Media\...
▶	7	00;01;51;13	H.264 [1080p 24]		10480	Jellyfish		D:\Media\...
▶	8	00:00:12:01	H.264 [1080p 25]		10822	Keyboard		D:\Media\...
▶	9	00;00;26;12	H.264 [1080p 24]		13441 (1)	Lights		D:\Media\...
▶	10	00;01;02;20	H.264 [1080p 29.97] (48 kHz)		3149	Montreal		D:\Media\...
▶	11	00:00:30:02	H.264 [1080p 25] (48 kHz)		7093 (1)	Moon		D:\Media\...
▶	12	00:00:23:14	H.264 [1080p 25] (48 kHz)		14900 (1)	Network		D:\Media\...
▶	13	00;00;05;01	H.264 [1080p 29.97] (48 kHz)		14840	Red		D:\Media\...
▶	14	00;00;40;02	H.264 [1080p 50]		4006 (1)	Sea		D:\Media\...
▶	15	00;00;49;21	H.264 [1080p 30]		8558	Ski		D:\Media\...
▶	16	00;00;28;03	H.264 [1080p 29.97] (48 kHz)		7328	Snowy Trees		D:\Media\...

Grid Features:

- The **Color Coding** in the grid provides additional information for the users:

Dark Blue bar shows the currently selected clip –all actions, i.e., Move Up/Down are applied to it.

Red text rows contain events. You can insert the same events as in **AirBox**.

Red-colored rows represent clips, which cannot be found at the specified file location. A red minus appears in front of the clip position number.

- Drag-n-Drop – It allows dragging playlist items within the grid or from one grid to another (from **DataBox** or from/to **AirBox)**.

If you hold down the **<Ctrl>** key while dragging, the executed operation is **Copy.** If you just drag-n-drop, the operation is **Move**.

- Multi-selection – allows simultaneous manipulation of many clips– move, randomize, etc. Clips can be added to the selection by holding the **<Shift>** or **<Ctrl>** key. The **<Shift>** key selects from-to, while the **<Ctrl>** adds a single clip to the selection.

- Double-clicking over a clip invokes the **Clip Trimmer**. A detailed description of the **Clip Trimmer** can be found further in the manual in its corresponding chapter. Double-clicking over a missing clip invokes its properties dialog. If you want to view the properties of an existing clip, right-click in its row and select **Clip properties...** from the context menu.

- Right-clicking in the grid opens a context menu. It contains commands from the **Edit menu** and the **Playlist menu** that are described further in the manual.

  ▪   *Columns description:*

- Start Time – shows the start time of each clip.

- Duration – shows the actual duration of each clip. If a clip has been trimmed, its new actual duration is displayed in this column.

- Type– shows the type of the clip (*MPEG, or AVI DV*).

- Category– contains category information, fed by **DataBox**. The background is colored with the predefined category color.

- File Name– contains information about the file-paths and names. If you need to change the path of a certain file in **List Box**, just press **<F8>** to open the Browse dialog.

If a file is missing after the playlist is loaded in **AirBox**, its line will be skipped and the playout will continue with the next available clip.

- Title, **ClipID**, **Star**– contain data, fed by **DataBox**, describing the clip name, clip ID, and the performing artists. You can edit these fields manually in **ListBox**, in the clip properties dialog.

- Notes – displays trimming notification and data from the fields, defined in **DataBox➜Options**⇨*General*→*Fields to AirBox notes*. You can edit these notes in the clip properties dialog in **ListBox**.

> **(!) TIP:** You can choose the columns to be shown in the grid. Go to **Settings** menu **➜ General ➜ Grid** and check the ones you would like to see. If you would like to change the columns' order, rearrange them in this dialog, or simply drag their headers, while working in the playlist.

Status Bar

| Total duration: 00:13:03:02 | Loop at: 15:08:59:19 | Selection: 00:13:03:02 | MPO (1) Mixed Playback (PAL) |

The Status bar is located in the lowest part of the **ListBox** window.

Its first cell – *Total Length* – shows the playlist duration. If it is longer than 24 hours, the number of days will be displayed in brackets in front. The figure in parenthesis in the end shows the number of rows in the list. The Second field – *End at/Loop at* –shows when the playlist will end. If the playlist is longer than 24 hours, the number of days will be displayed in brackets in front. The third cell – *Selection Length* – represents the duration of the currently highlighted lines in the grid. The fourth cell displays the currently active plug-in.

> **NOTE:** **ListBox** is always running on the Software Mixed plug-in. As this plug-in supports virtually all file formats, please go to **Settings** menu **➜ Modules ➜ Output,** and select the plug-in you are planning to use in **AirBox**. This will allow for correct file verification in **ListBox**.

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MENU BAR

The *Menu Bar* is situated in the upper left end of the window and contains the same menus as **AirBox**. However, some of the options are disabled, as they are not relevant in playlist preparation. The following paragraphs contain description of the differences that appear in **ListBox**. Please, check the **AirBox** File menusection above for detailed information about the common settings.

File Menu

Export Capture list
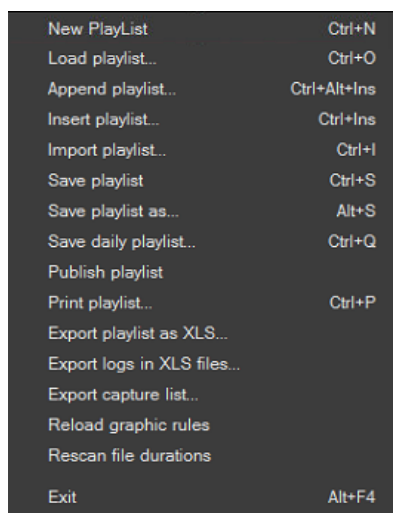
If there are missing files in the playlist, you can create a list for **CaptureBox** to ingest them. Select **Export capture list** from the **File** menu and browse for the location to save the playlist to. The resulting capture lists (*.cap*) will be named after the currently loaded playlist.

Export Logs to XLS

This File menu item appears in **AirBox**, but it is not visible in **ListBox**.

Reload Graphic Rules

This File menu item appears in **AirBox**, but it is not visible in **ListBox**.

Edit Menu

This menu contains commands, related to playlist editing. As it is identical to the **AirBox** Edit menu, please, check the relevant section above for details.

View menu

This menu is identical to the **AirBox** View menu. The only difference is that in **ListBox** you cannot view external preview window, while in **AirBox** you can.

Settings menu

As the **Settings** menu contains many playback-related options, here you will find most of the differences between the two modules.

General

In the *General* tab of this options dialog, there are several fields that are not accessible in **ListBox**:

☑ *Restart playback after* – this setting is always enabled.

☐ *Enable remote IP control* – This functionality is related to remote control of the playback. As **ListBox** is intended for playlist preparation, it is not needed here.

TC transmission options – as they are related to on-air subtitling, they are not needed in **ListBox**.

All the other settings in this dialog are the same as in **AirBox ➜ Settings** menu **➜ General** ⇨ **General**.

Interface

In the **Interface** tab, there are two options that are always enabled and inaccessible:

Modules

AirBox Output tab – here you can find a list of presets that will be used for file verification while building your playlists in **ListBox**. All you have to do is select the platform and file format you intend to use for playout in **AirBox,** and double-click to assign it.

In the **Remote** tab you can enable the events plug-ins you intend to use in **AirBox** and configure them. If **AirBox** and **ListBox** are running on the same server, these settings will be shared between them. Please, check the **AirBox** section for external events description.

The **Logo** tab and the **TC** tab are not relevant in **ListBox**, thus, they are disabled.

Tools menu

The **Tools** menu is identical to the **AirBox** Tools menu. Please, check the relevant section above for details.

Commands menu

The commands menu contains some playback-related and logo-related commands. As they are identical to the **AirBox** commands, please, check the relevant section above for details.

Help menu

PlayBox Help

This menu item opens the **ListBox** context-sensitive help. It is still under development.

PlayBox Doctor...

Open it to start a tool that automatically collects data about your system and current setting, in order to provide you with proper support. All you have to do is fill-in the mandatory fields and send the resulting PlayBox Doctor report to us. See detailed description of the PlayBox Doctor features in the Basic PlayBox manual.

About...

Clicking on this menu item displays the **About** box of the **ListBox** module. It contains useful information about the module version, WIBU Box number, license type, registration, etc.

APPENDIX 1 – AirBox and ListBox Examples

Example 1.   Volume Normalization:
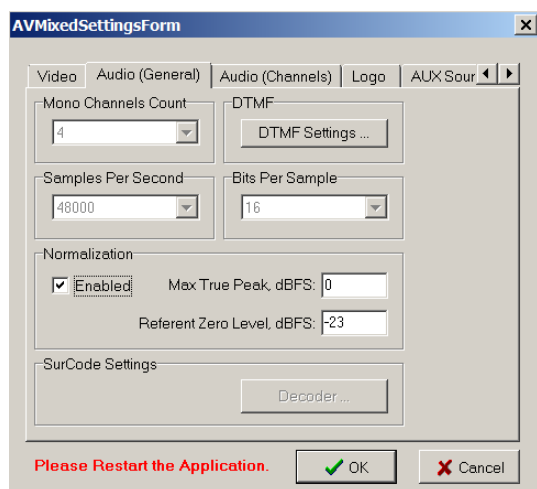
Suppose that you have enabled volume normalization and you have set the Referent Zero Level to -23 dbFS. Suppose further, that you have no metadata for the input file, and that the Volume Level at the output is above the referent level. Then, when you play the file, there will be no normalization, as there is no metadata file.

If you set metadata for your input file, the Volume at the output will be kept to the Referent Level, and it will be the same during the entire playout of the file.

Example 2.   No Language Descriptions:

Suppose that you have PCM to PCM audio with 8PCM Stereo audio stream at the output with languages, set to Undetermined in the Language field. However, suppose further, that the number of input channels is 16, so it is equal to the number of output channels, and that there is no metadata defined for the input audio stream file. Thus, your Mixed Audio Channel Settings Form will look like this:
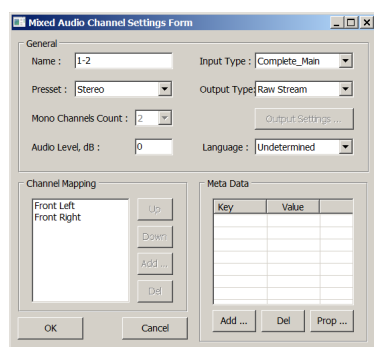
When you play the input file, the input audio streams will be sequentially mapped to the output streams.

Example 3.   Remapping Strategy with Defined Languages:

Suppose that you have PCM to PCM audio with 7 PCM Stereo audio streams at the output and an input file with 16 channels, so the number of output channels is less than the number of input channels. However, you have defined languages for your output and an input file with language metadata, like this:

Output	Input
Channel 1-2 French	Stream 1 (1-2) German
Channel 3-4 Bulgarian	Stream 2 (3-4) No language
Channel 5-6 German	Stream 3 (5-6) Bulgarian
Channel 11-12 Bulgarian	Stream 4 (7-8) French
Channel 13-14 Spanish	Stream 5 (9-10) Russian
	Stream 6 (11-12) No language
	Stream 7 (13-14) No language
	Stream 8 (15-16) No language
Result after input file is played	
French goes to French → Stream 4 to 1-2	Stream 2 to 13-14
Bulgarian to the 2 Bulgarian streams → Stream 3 to 3-4 AND to 11-12	Undetermined output gets the available non-mapped input with language → Stream 5 to 7-8
German to German → Stream 1 to 5-6	All other unassigned streams will be mapped in sequential order: → Stream 6 to 9-10
Spanish has no matching input stream, so it gets the 1st in order without a defined language	→ Stream 7 to 15-16 → Stream 8 is discarded

Example 4.   Remapping Strategy with no Language Description at the Input:

Suppose that you have have PCM to PCM audio with 7 PCM Stereo audio streams at the output and an input file with 16 channels, so the number of output channels is less than the number of input channels. Suppose further that the output languages are defined in the same way as in *Example 3* above, but the input file has no languages defined. As a result, when you play the input file, the input streams will be mapped to the output streams in sequential order, regardless of the language definitions for the output channels.

Example 5.   **Remapping Strategy with no Language Description at the Output:**

Suppose that you have have PCM to PCM audio with 7 PCM Stereo audio streams at the output and an input file with 16 channels, so the number of output channels is less than the number of input channels. Suppose further that the output languages are undetermined and the input file has the same set of languages, as the one in *Example 3* above. As a result, when you play the input file, the input streams will be mapped to the output streams in sequential order, regardless of the language definitions of the input channels.

Example 6.   **No Language Descriptions and Disabled Mapping:**

Suppose that you have no defined languages for both the output and the input audio, and your mapping is disabled. Suppose further, that the number of input audio streams is 3, and the number of output audio streams is 8, all of which are Stereo. Thus, the input channels are less than the output channels. The result after you play the input file will be that your input audio streams will go to the first three output audio streams in sequential order and the other five audio output streams will play silence.

Example 7.   **Input Language Descriptions and Disabled Mapping:**

Suppose that you have defined 8 Stereo output streams with Undetermined languages and 3 input streams, of which only the third has a defined language, which is English. Suppose further, that your mapping is disabled. Since the input stream with English assigned has a higher priority than the streams with no language specified, when you play the input file, the 3rd stream of the input file will go to the 1st stream of the output. The other two streams of the input will go to streams 2 and 3 of the output in sequential order. The remaining 5 audio output streams will play silence.

Example 8.   **Output Language Descriptions and Disabled Mapping:**

Suppose that you have an output with 8 Stereo streams, the 4th of which has English assigned, and you have an input file with 3 streams, all of which have Undetermined language metadata. Suppose further, that your mapping is disabled. Since the output stream with language assigned has a higher priority than the streams with no language specified, when you play the input file, the 1st input stream will go to the 4th output stream, and the other two input streams will be mapped sequentially to the 1st and 2nd output streams. The remaining 5 output streams will play silence.

Example 9.   **No Language Descriptions and Enabled Mapping:**

Suppose that you have 8 Sterei output streams and 3 input streams, all of which have Undetermined language metadata. Suppose further, that your mapping is enabled. When you play the file, the input audio streams will go sequentiallyl to the first three output audio streams in the order they are defined. Furthermore, the audio of the 1st output stream (in English) will also go to the remaining 5 output audio streams, for which there is no input audio.

Example 10.   **Input Language Descriptions and Enabled Mapping:**

Suppose that you have an input file with 3 streams, the third of which is set to English, and the other two are undetermined. Suppose further, that your output has 8 Stereo streams, and that your mapping is enabled. Since the input stream with language assigned has a higher priority than the streams with no language specified, when you play the file, the 3rd input stream will go to the 1st output stream, and the other two input streams will go to the 2nd and 3rd output streams in sequential order. Furthermore, the audio of the 1st output stream (in English) will be copied to the remaining 5 output audio streams, for which there is no input audio.

Example 11.   **Output Language Descriptions and Enabled Mapping:**

Suppose that you have an input file with 3 streams, all of which have Undetermined language metadata. Suppose further, that you have defined 8 Stereo output streams , the 4th of which has English assigned, and that your mapping is enabled. Thus, when you play the file, 1st input stream will go to the 4th output stream, since it has a defined language and has a higher priority than the other streams. The other two input streams will go to the 1st and 2nd output streams in sequential order, and the audio of the 1st output stream (2nd input stream) will go to the remaining 5 output audio streams, for which there is no input audio.

Example 12.   **Down Convert 5.1 to 2.0 with no Language Descriptions:**

Suppose that your input file has the following audio streams:

Stream 1 - 5.1

Stream 2 - 2.0

Stream 3 - 5.1

Suppose further that none of the above streams have languages assigned, and that there are 8 PCM Stereo streams, defined at the output, which also have no languages assigned. When you play the file, the 2nd input stream will go to the 1st output stream with no language, and the 1st and the 3rd input streams will go correspondingly to the 2nd and 3rd output streams. The rest of the output streams will either play silence, or will duplicate the 1st output channel, depending on your registry configurations.

NOTE: If you want to make a special registry configuration, related to Example 11, please, contact our support team at support@playboxtechnology.com.

Example 13.   Down Convert 5.1 to 2.0 with Language Descriptions:

Suppose that you have the same input file, as the one in Example 11 above but it has English assigned for Stream 3. Suppose further, that the output has 8 PCM Stereo streams and English is assigned to the 3rd and the 4th. When you play the file, the 3rd input Stream (in English) will be down converted to Stereo 2.0, and will go to the 2nd output. Stream 2 from the input will go to the 1st output stream, and the 1st input stream will be down converted to Stereo 2.0, and will go to the 3rd output stream.

Example 14.   Down Convert 5.1 to 2.0 with a Different Count of Language Descriptions:

Suppose that you have the following input:

Stream 1 - 5.1 → no language

Stream 2 - 2.0 → English

Stream 3 - 5.1 → English

Suppose further that your output has 8 PCM Stereo 2.0 streams with English assigned to the 2nd output stream. Since input Stream 2 matches output stream 2 both by language and by type, it will go to it. Input Stream 3, which is in English, has a higher priority than the input stream with no language. Thus, it will be down converted to Stereo 2.0 and will go to the 1st output stream without a language assigned. Finally, Stream 1 from the input will also be down converted to Stereo 2.0, and it will go to the 3rd output stream.

Example 15.   Up Convert 2.0 to 5.1 with no Language Descriptions:

Suppose that you have the following output and input with no languages assigned:

Output	Input
Stream 1 (Channels 1 – 6) – 5.1 Stream 2 (Channels 7 – 12) – 5.1 Stream 3 (Channels 13 – 14) – 2.0 Stream 4 (Channels 15 – 16) – 2.0	Stream 1 - 2.0 Stream 2 - 5.1 Stream 3 - 2.0

When you play the file, you will have the following result:

Input Stream 2 will go to the 1st output stream (Channels 1 – 6)

Input Stream 1 will go to the 3rd output stream (Channels 13-14)

Input Stream 3 will go to the 4th output stream (Channels 15-16)

The remaining 2nd output stream (Channels 7 – 12) will either play silence, or it will duplicate the 1st output stream (Channels 1 – 6)

> NOTE: If you want to add a special configuration, related to the example above, please contact our support team at support@playboxtechnology.com.

Example 16.   Up Convert 2.0 to 5.1 with Language Descriptions:

Suppose that you have the following output and input:

Output	Input
Stream 1 (Channels 1 – 6) – 5.1 → no language Stream 2 (Channels 7 – 12) – 5.1 → English Stream 3 (Channels 13 – 14) – 2.0 → no language Stream 4 (Channels 15 – 16) – 2.0 → no language	Stream 1 - 2.0 → no language Stream 2 - 5.1 → no language Stream 3 - 2.0 → English

When you play the file, you will have the following result:

Input Stream 3 will be up converted to Stereo 5.1 and will go to Output Stream 2 (Channels 7 – 12)

Input Stream 1 will go to Output Stream 3 (Channels 13 – 14)

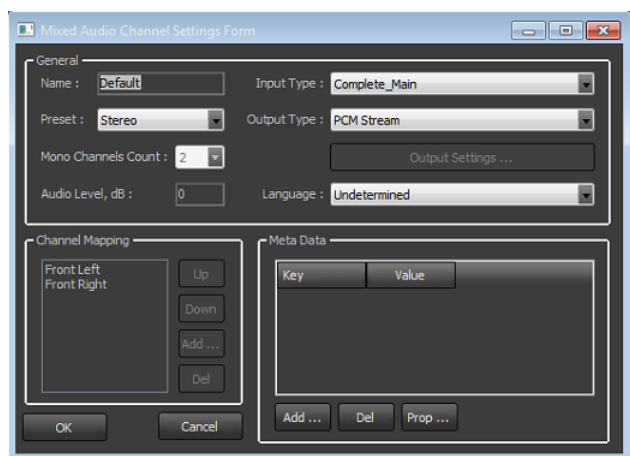Input Stream 3 will go to Output Stream 4 (channels 15 – 16)

The remaining Output Stream 1 (Channels 1 – 6) will play silence.

Example 17.   AC3 Audio with no Language Descriptions:

Suppose that your input file is in AC3 audio, and that you have the following output audio settings:

Stream 1 (Channels 1-6) – Default

Stream 2 (Channels 7-12) – preset 5 channels LFE and output type SurCode for Dolby

Stream 3 (Channels 13-14) – PCM Stereo

Stream 4 (Channels 15-16) – PCM Stereo

Suppose further, that you have no languages assigned for the output, nor for the input streams.

When you play the file, you will have the following result:

Input Stream 1 will go to Output Stream 1 (Channels 1-6)

Input Stream 2 will go to Output Stream 2 (Channels 7-12)

Input Stream 3 will be converted to PCM Stereo and it will go to Output Stream 3 (Channels 13-14)

Input Stream 4 will be converted to PCM Stereo and it will go to Output Stream 4 (Channels 15-16)

Example 18.   AC3 Audio with Language Descriptions:

Suppose that your input file is in AC3 audio and it has English assigned for its 2nd Stream, as well as French for its 1st Stream. Suppose further, that you have the following output audio settings:

Stream 1 (Channels 1-6) – Default

Stream 2 (Channels 7-12) – preset 5 channels LFE, output type SurCode for Dolby, and English assigned

Stream 3 (Channels 13-14) – PCM Stereo and French assigned

Stream 4 (Channels 15-16) – PCM Stereo

When you play the file, you will have the following result:

Input Stream 1 will be converted to PCM Stereo, and it will go to Ouptut Stream 3 (Channels 13-14)

Input Stream 2 will go to Output Stream 2 (Channels 7-12)

Input Stream 3 will go to Output Stream 1 (Channels 1-6)

Input Stream 4 will be converted to PCM Stereo, and it will go to Output Stream 4 (Channels 15-16)

Example 19. PCM Input to AC3 Output:

Suppose that you have an input file with 8 PCM Stereo streams, and that you have an AC3 output. Suppose further, that none of the input streams, nor the output streams, have languages assigned.

When you play the file, you will have the following result:

Input Stream 1 will go to Output Stream 3 (Channels 13-14)

Input Stream 2 will go to Output Stream 4 (Channels 15-16)

Input Stream 3 will be up converted to 5.1, and it will go to Output Stream 1 (Channels 1-6)

Input Stream 4 will be up converted to 5.1 and it will go to Stream 2 (Channels 7-12)

Example 20. Creating a Regular Playlist:

Open *AirBox* and go to **File ➔ New Playlist.** Notice that *ListBox* is opened. In ListBox go to Settings – Modules – AirBox Output and double-click on the output plugin that matches the one, set for AirBox. Save your settings and notice that the ListBox output is configured according to the AirBox output plugin setup.

The next step is to add items to the playlist by drag-n-dropping. Select a media folder, containing the files you want to play and place them in the playlist area of the ListBox main window. Save your playlist from File – Save with your desired name. Close ListBox.

Example 21. Creating a Daily Playlist:

Press the Create New Playlist button in AirBox. Notice that ListBox is opened. Add your desired media files via drag-n-dropping them from the respective folder to the playlist grid. Go to File – Save daily playlist. The Daily Playlist dialog will open. Set your start time and select the folder, where the daily playlist will be saved. Notice that the name of the playlist is created automatically. Press Save and verify that the specified folder contains a file with the name displayed in the Save Daily Playlist form.

Example 22. Load a Playlist Manually:

Open AirBox and go to File – Load Playlist. Select the playlist, already created in Example 20 above and press Open. Verify that the properties of the items in the playlist, i.e., duration, type, and metadata are correct. Select the Playlist tab from the multi-purpose zone and double-click on a playlist from the list.

Start a new playlist by pressing the Create New Playlist button in AirBox or via the <Ctrl + N> key combination. Notice that ListBox is opened. There go to Settings – Modules – AirBox Output and double-click on NONE. Save your settings.

Add your desired media files via drag-n-dropping them in the playlist grid, save your playlist and close ListBox. Notice that all the files in the playlist have a duration of [00:00:00:00], the items are marked in red and the Type column contains the text [Unsupported media].

Go to AirBox and click on the Load Playlist from File button. Open the playlist that you have just saved in ListBox. The newly loaded files will have a duration of [00:00:00:00]. Go to Settings – General – check Auto update duration of marked files. Set the time for auto update to 1 minute and save your settings. Select some of the items in the playlist, right-click and select Auto update. The auto update symbol will appear in the first column of the selected items. In about a minute the duration of the selected files for auto update will change and become greater than [00:00:00:00].

Example 23.   Automatically Load a New Playlist on StartUp:

Open AirBox and go to Settings – StartUp. Verify that the New radio button is selected and save your settings. Restart AirBox and notice that when you restart AirBox an empty playlist will be displayed.

Example 24.   Automatically Load the Last Used Playlist:

Open AirBox and load a playlist. Go to Settings – Startup, select the Last used radio button and place a check in the Auto start playback after playlist loading box. Save your settings and restart AirBox. Notice that the last used playlist is loaded and the playout starts immediately.

Example 25.   Trigger the Open Playlist Dialog at Startup:

Open AirBox and go to Settings – Startup. Select the Open dialog radio button and save your settings. Restart AirBox and notice that the open playlist dialog appears automatically upon startup. Select your desired playlist and press Open.

Example 26.   Automatically Load an Existing Daily Playlist on StartUp:

Open AirBox and create several daily playlists (as shown in Example 21 above). Create one playlist for the current day, which starts 5 minutes after the current time, one for the next day, and one for the previous day. Save your playlists in the default folder, suggested by AirBox / ListBox. Go to AirBox Settings – StartUp and select the Daily playlist folder radio button. Verify that the Reload playlist immediately option is selected. Save your settings and restart AirBox. Notice that the daily playlist for the current day is loaded and the playout starts when the start time occurs.

Example 27.   Automatically Load an Existing Daily Playlist on StartUp:

Open AirBox and create two different daily playlists for the current day. Set the start time of the first one to be 5 minutes after the current time and that for the second one to be 10 minutes after current time. Go to AirBox Settings – Startup and in the field next to the Daily playlist folder option fill in the folder path, where your daily playlist are saved. Save your settings and restart AirBox. Notice that the daily playlist with start time closer to the current time (i.e., the one set for 5 minutes after the current time) is loaded and the playout starts when the start time occurs.

Example 28.   No Current Daily Playlist is Available:

Open AirBox and move all daily playlists for the day to a different folder. Then load a 24-hour playlist and save it as a daily playlist with a date, corresponding to 1 week before the current date and a start time of [00:00:01:00]. In AirBox Settings – Startup dialog verify that none of the boxes from the If there is no current daily playlists field is checked. Restart AirBox and notice that no playlist is loaded.

Revisit AirBox Settings – Startup dialog and check the Try to load last daily playlist for same weekday box and save your settings. Restart AirBox and notice that the playlist, saved for last week is loaded.

Another way to load the latter daily playlist automatically is to check the Try to load past daily playlist from last box and enter 10 days in the spin-box in AirBox Settings – Startup dialog. However, if you enter less than 7 days in this spin-box, the daily playlist that is 1 week old will not be played automatically.

Example 29.   Reload a Regular Playlist on File Change in AirBox:

Let us assume that you are using two AirBox instances, **AB#1** and **AB#2** and that the second instance is set to **Soft Mixed output plugin**.

Assume further that **AB #1** has the following configurations in Settings – Startup dialog:

- The New radio button is selected in the StartUp playlist field.
- The Reload playlist on file change box is checked and the Reload daily playlist without playing box it is NOT checked in the Reload playlist options field.
- The Reload playlist immediately radio button is selected in the When reload playlist field.

Imagine that we load the same **regular** playlist in both AirBox instances and start their playout. If we **delete** the currently played clip in **AB#2** and save the playlist, in **AB#1** the playlist will be reloaded without the deleted clip and the playout will start from the beginning of the playlist.

Furthermore, imagine that we insert a few media files after the currently played clip in **AB#2** and save the modified playlist. As a result, the playlist in **AB#1** will be reloaded, and the playout will continue with the next clip.

Example 30. Reload a Regular Playlist on File Change in ListBox:

Let us assume that you are using AirBox together with ListBox. Assume further that you start ListBox, load the playlist currently played in AirBox, delete a few items before the currently played clip, and save the playlist. As a result, the playlist will be reloaded in AirBox, and the playout will continue with the next clip.

Now imagine that the Wait for playing clip end radio button is selected following in AirBox Settings – Startup and that you reset the playlist with the Reset button and press Play in AirBox. Furthermore, assume that you modify the playlist in ListBox and save it while AirBox is playing. As a result, the playlist in AirBox will be reloaded after the end of the currently playing clip and the playout will continue from the next clip.

Finally, suppose that you delete the currently playing clip in ListBox and save the playlist. As a result, the playlist in AirBox will be reloaded after the end of the currently playing clip, and the playout will start from the beginning of the playlist.

Example 31. Reload a Daily Playlist Immediately on File Change in ListBox:

Open AirBox and create a daily playlist with start time a few minutes later than the current time. Go to Settings – Startup and select the Daily playlist folder radio button. Verify that the Reload on file change option is checked and select the Reload playlist immediately radio button. Set the Pre-cache new playlist to 30 minutes before start, save your settings, and restart AirBox. The playout of the daily playlist should start when its start time occurs. When this happens, open ListBox, insert a few media files after the currently played clip, and delete a few others with start time after the currently played clip. Save your playlist and notice that the daily playlist in AirBox is reloaded and the playout is resumed according to the current time.

Example 32. Reload a Daily Playlist on File Change in ListBox While a New Playlist is Pre-cached:

Open AirBox and create a daily playlist with start time a few minutes later than the current time. Go to Settings – Startup and select the Daily playlist folder radio button. Verify that the Reload on file change option is checked and select the Reload playlist immediately radio button. Set the Pre-cache new playlist to 30 minutes before start, save your settings, and restart AirBox. Open the log view and monitor it until a message like this appears: [17:10:22:000 - Precaching playlist: D:\playlists*.ply 17:10:22:129 - Playlist D:\playlists*.ply is cached and ready for cue]. Next, open ListBox, modify the currently playing daily playlist and save it. Notice that the changed playlist is NOT reloaded and a warning message is displayed.

Example 33. Reload a Daily Playlist on File Change in ListBox Without Playing it:

Open AirBox and go to Settings – Startup. Check the Reload daily playlist without playing it box, save your settings and restart AirBox. Next, open ListBox, modify the playlist and save it. Notice that in AirBox the playlist is reloaded and the playout is stopped.

Example 34. Reload a Daily Playlist on File Change in ListBox Using the Wait for Playing Clip End Option:

Open AirBox and create a daily playlist with start time equal to a few minutes after the current time. While the playout is stopped, go to Settings – Startup and select the Wait for playing clip end radio button. Save your settings and restart AirBox. Next, open ListBox, modify and save the same playlist by deleting and / or adding items. Notice that in AirBox the playlist is reloaded after the end of the currently played clip and the playout is resumed according to the current time.

Example 35. Overlapping Between Daily Playlists:

Suppose that you have two daily playlists in AirBox, set for the current day. Furthermore, suppose that in AirBox Settings – Startup dialog the Daily playlist folder radio button, as well as the Reload playlist immediately radio buttons are selected.

Now let us assume that an overlapping exists between the current and the new playlist. In other words, the first playlist is with short duration and a start time a few minutes after the current time, and the second playlist is with start time that overlaps the first one. Start playing the first daily playlist and notice how when the start time of the second playlist occurs the currently played clip is trimmed and the second playlist is immediately loaded and played.

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Example 36.   Gap Between Daily Playlists:

Suppose that you have two daily playlists in AirBox, set for the current day, of which the first one starts a few minutes after the current time, and the second one starts a few minutes after the end of the first one. Furthermore, suppose that in AirBox Settings – Startup dialog the Daily playlist folder radio button, as well as the Reload playlist immediately radio buttons are selected.

Now let us assume that there exists a gap between the current and the new daily playlist and the Fill gap between playlists box is checked in AirBox Settings – Startup dialog. Start the playout in AirBox and notice that after the end of the first playlist the corresponding auto-fill clip is played, and the playout of the second playlists begins when its start time occurs.

Note that if the Fill gap between playlists box is not checked and you perform the playout, described above, when the first playlist ends, the AirBox playout will be stopped and the new playlist will be in Cue mode.

Example 37.   Wait for Playing Clip End Option:

Open AirBox and go to Settings – Startup. Select the Wait for playing clip end radio button and save your settings. Suppose that you have two overlapping daily playlists, as in Example 35 above. Open AirBox and go to Settings – Startup. As a result, when you start the playout and the time for starting the second playlist occurs, the currently playing clip from the first daily playlist is played until the end ant all following clips are removed.

Suppose further that you have the above setting but you have defined a Daily Playlist Tolerance in AirBox Settings – Startup. Thus, when the start time of the second playlist occurs two things might happen:

If the start time of the second playlist is closer to the current clip end time, i.e., the time difference is shorter or equal to the tolerance, defined in the Startup Settings, the start time of the second playlist will be updated by adding the time difference.

If, however, the start time of the second playlist is closer to the current clip start time, i.e., the time difference is lower or equal to the tolerance, defined in the Startup Settings, the start time of the next clip will be updated by subtracting the time difference and the overlapping clip will be removed.

Furthermore, if the above tolerance subtractions are not enough to compensate for the time difference, the clip trimming will be taken into account.

Example 38.   Wait for Playing Clip End Option with Allow Clip Trimming:

Open AirBox and go to Settings – Startup. Select the Wait for playing clip end radio button, check the Allow Clip Trimming box and save your settings. Suppose that you have two overlapping daily playlists, as in Example 35 above and that you have defined a Daily playlist loading tolerance. Suppose further that when you start the playout and the time for starting the second playlist approaches it appears so that the end time of the currently playing clip is closer to the end time of the first clip from the second playlist. In other words, the end time of the first clip of the second playlists occurs sooner than the end of the currently playing clip. Now let us assume that the Daily playlist loading tolerance appears to be greater or equal to the above time difference. As a result, when you restart AirBox, the start time of the second clip in the new playlist will be updated by subtracting the time difference and the overlapping and the initial clip of the second playlist will be removed.

Example 39.   Wait for Playing Clip End Option with Offset the Whole Playlist:

Open AirBox and go to Settings – Startup. Select the Wait for playing clip end radio button, check the Allow Clip Trimming box and save your settings. Suppose that you have two overlapping daily playlists, as in Example 35. Suppose further that you have set a value for the Daily playlist loading tolerance and that the delay of the new playlist is within this value. As a result, when you start the playout and the start time of the second playlist approaches, the new playlist will be moved with the time difference between the two playlists.

Example 40.   Wait for Playing Clip End Option with no Clip Trimming, nor Offset:

Open AirBox and go to Settings – Startup. Select the Wait for playing clip end radio button. Suppose that you have two overlapping daily playlists, as in Example 35. Suppose further that you have set a value for the Daily playlist loading tolerance, which is less than the difference between the playlists. As a result, when you start the playout and the start time of the second playlist approaches, the overlapping clip from the new playlist will be removed and

the gap between the current clip end and the start time of the next clip in the playlist will be filled with an auto-fill clip if the Fill gap between playlists option is checked. Otherwise, the playout of the second playlist will be Cued.

APPENDIX 2 – LISTBOX KEYBOARD SHORTCUTS

GENERAL

Function	Shortcut
New playlist	Ctrl+N
Load playlist	Ctrl+O
Save playlist	Ctrl+S
Save playlist As	Alt+S
Print playlist	Ctrl+S
Append a clip at playlist end	Alt+Ins
Insert a clip before selected clip	Ins
Remove a clip or clips	Del
Remove a clip without confirmation	Shift+Del
Clear All	Alt+Del
Clear All without confirmation	Shift+Alt+Del
Edit MPEG Media	Alt+Enter / Double-click

Find text	Shift+Ctrl+F

Undo/Redo last action	Ctrl+Z / Ctrl+Y
Insert Stop event	Ctrl+Alt+S
Insert Stop Cue event	Ctrl+Alt+C
Insert Wait event	Ctrl+Alt+W
Insert Wait Until event	Ctrl+Alt+U
Insert Wait Time Code event	Ctrl+Alt+A
Insert Logo event	Ctrl+Alt+L
Insert GPI event	Ctrl+Alt+G
Insert KramerSwitcher event	Ctrl+Alt+K
Insert KramerMatrix output	Ctrl+Alt+R
Insert TitleBoxNetCtrl output	Ctrl+Alt+T
Add Stop event	Shift+Ctrl+S
Add Stop Cue event	Shift+Ctrl+C
Add Wait event	Shift+Ctrl+W
Add Wait Until event	Shift+Ctrl+U
Add Wait Time Code event	Shift+Ctrl+A
Add Logo event	Shift+Ctrl+L
Add GPI event	Shift+Ctrl+G

Add KramerSwitcher event	Shift+Ctrl+K
Add KramerMatrix output	Shift+Ctrl+R
Add TitleBoxNetCtrl output	Shift+Ctrl+T
Insert Note event	Ctrl+Alt+N
Add Note event	Shift+Ctrl+N

GRID CONTROL

Function	Shortcut 1
Page scrolling	PageUp/PageDown
Jump to grid beginning	Home
Jump to grid end	End

SELECTION MANAGEMENT

Function	Shortcut 1
Selection bar movement	Up/Down arrows/ Click
Select multiple sequential clips	Shift+Up/Down arrows
Select more clips out of the sequence	Ctrl+Click
Select All	Ctrl+A
Invert selection	Shift+Ctrl+I

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Cut selection	Ctrl+X
Copy selection	Ctrl+C
Paste selection	Ctrl+V
Move multiple selection	Alt+Drag-n-drop
Duplicate selection	Ctrl+Drag-n-drop
Move to playlist beginning	Alt+Home
Move selection 1 line up	Alt+Up
Move selection 1 line down	Alt+Down
Move selection to playlist end	Alt+End
Shift clips into selection range	Shift+Ctrl+H
Reverse clips order	Shift+Ctrl+V
Randomize clips order	Shift+Ctrl+R

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