

DIGI BROADCAST

(Rev. 3.1.0 Eng)

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1 INTRODUCTION

Digi-Broadcast is a dedicated software suite for the automatic multichannel broadcasting of multimedia files elaborated from Digiware.

It's composed by:

DIGI-SETUP - System configuration

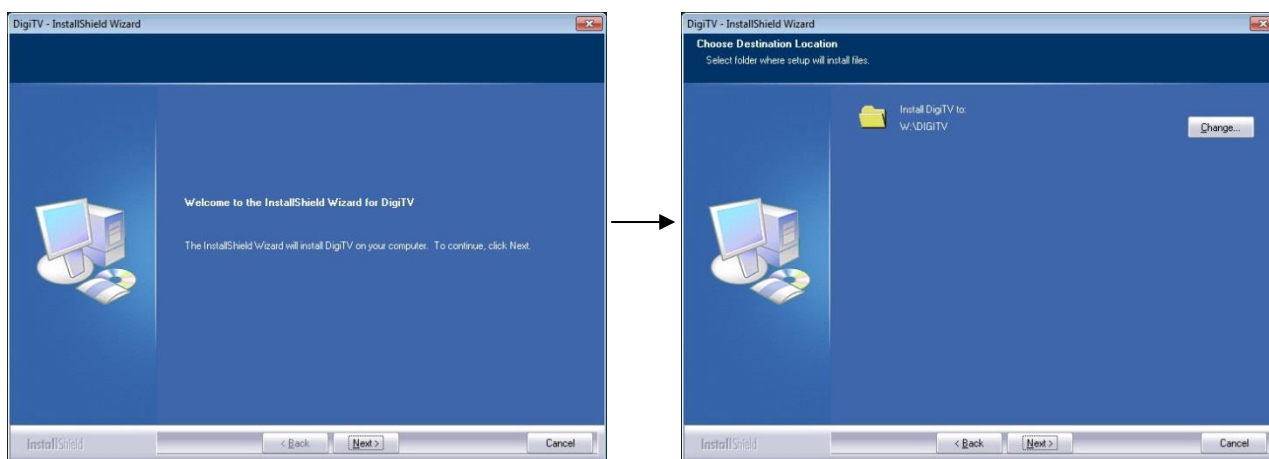
DIGI-BROADCAST - Schedule broadcasting

DIGI-VIEWER – Logs viewer

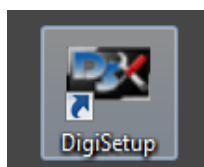
Digi-Broadcast controls Vcr, robots, and external devices automatically. It's a high level software and needs to be set up from expert on television systems, broadcasting devices with an advanced knowledge of signal routing. Digi-Broadcast works with a routing IP managed by "Communication server" that is an Axel Technology software. For the recording, it uses DML.

Before installing it, you have to set all the net units, where installation files and videos will be placed. Normally, we use to set that unit as "W".

Now you're ready to run the Digi-tv setup and follow the install shield:



At the end of the installations, it will appear on the desktop the icon that will aim you to configure all the television system: video switchers, video cards, VCR, recording devices, macro and datas.



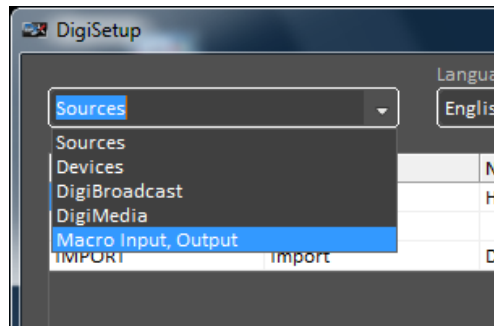
2 DIGI-SETUP

The default installation is set for a basic composition composed by a server, a video switcher (identified as Switcher1) and DeckLink video card from Black Magic.

Opening the Setup dialog window it will aim you to configure all the devices you will use to broadcast your TV channel, grouped in Sources, Devices, Digibroadcast, Digiimedia, Macro input and output.

2.1 SOURCES

With "Sources" we identify input videos, such as files, satellite signals, feed from editing suites, control rooms etc

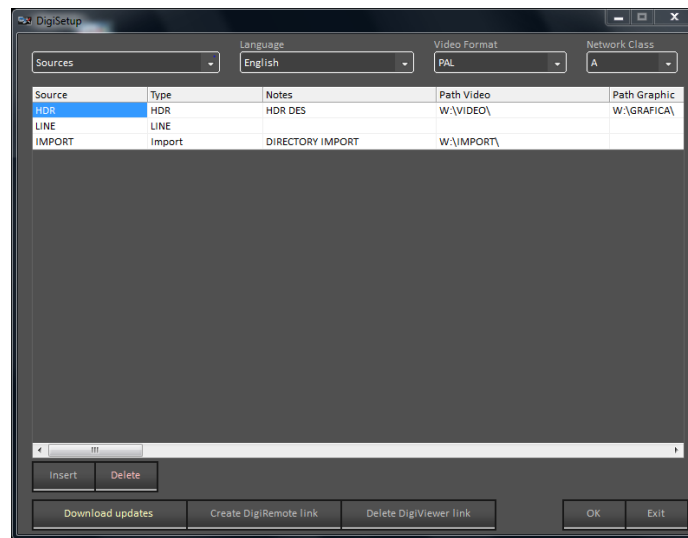


Digi-Tv set by default three sources:

HDR: with the information about the path's directory "W:\VIDEO" and "W:\GRAFICA"

LINE

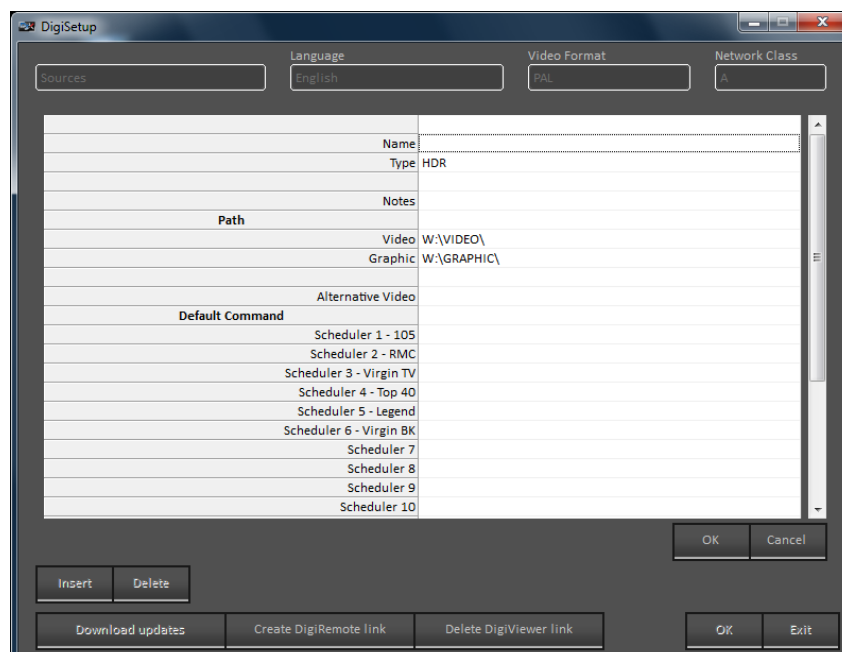
IMPORT: with the path where the video clips you will use into the schedule are stored



To add more sources:

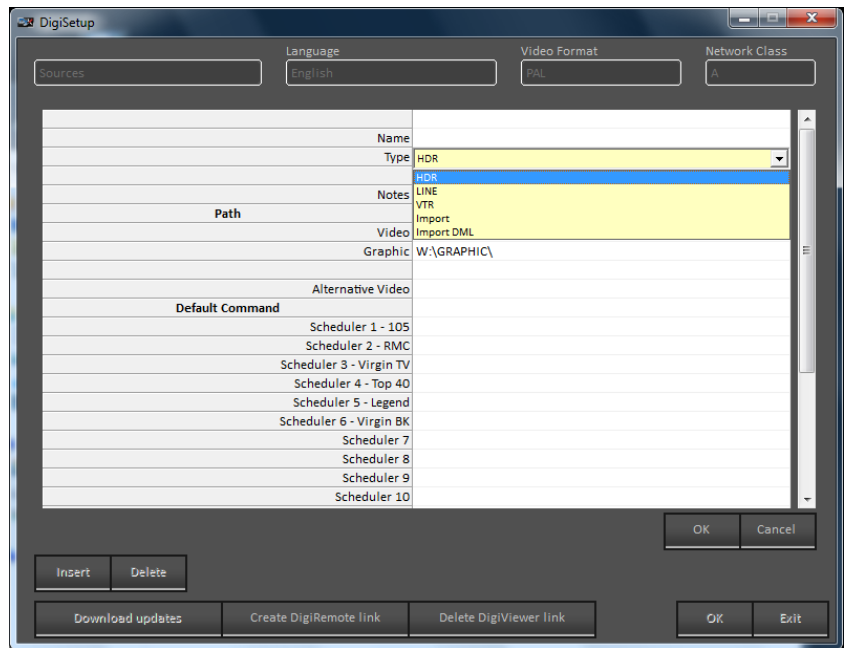
Selecting "Insert" it will open a new window where it will be possible to define the name of the new input.

For example, a satellite feed will be inserted in the category "Line" and in "Command default" you will be able to set the link and the communication to the video switcher.

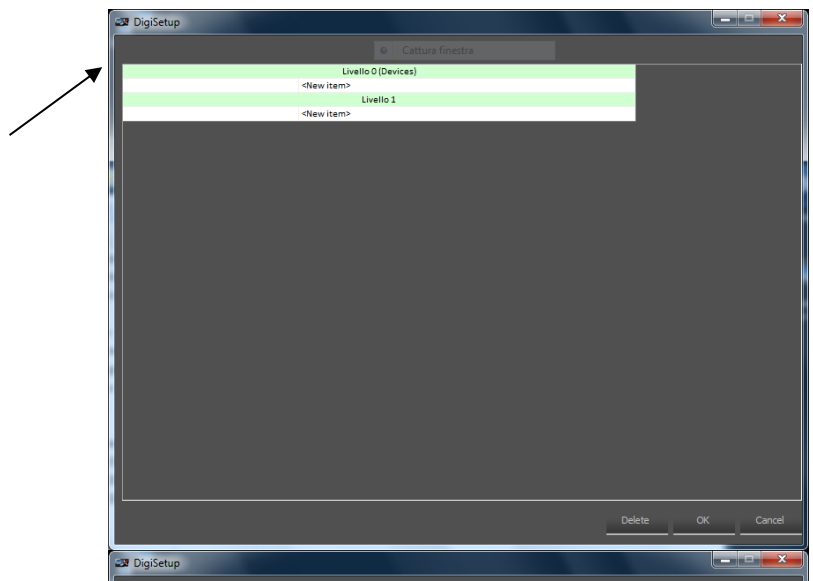
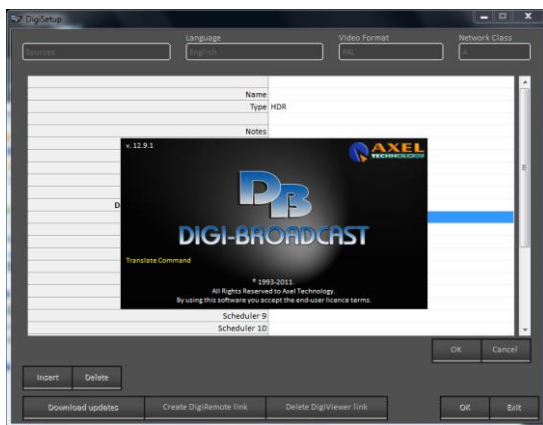


For any source you can define:
 Name – (typed from the user)
 Type – 5 categories:
 HDR (File)
 Line
 VTR
 Import
 Import DML

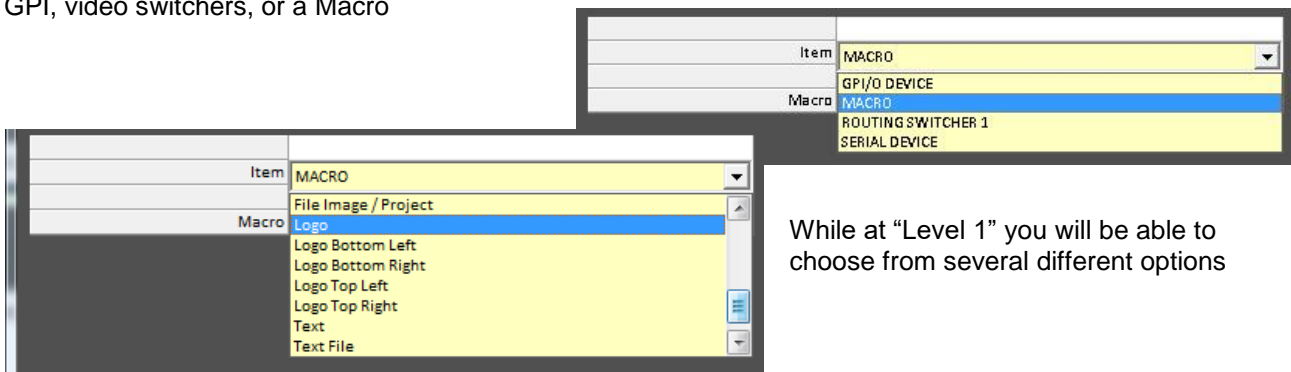
Path – to set the net path for video and graphic



Clicking on the row “Scheduler#” it will open the new engine “Digi-Broadcast”



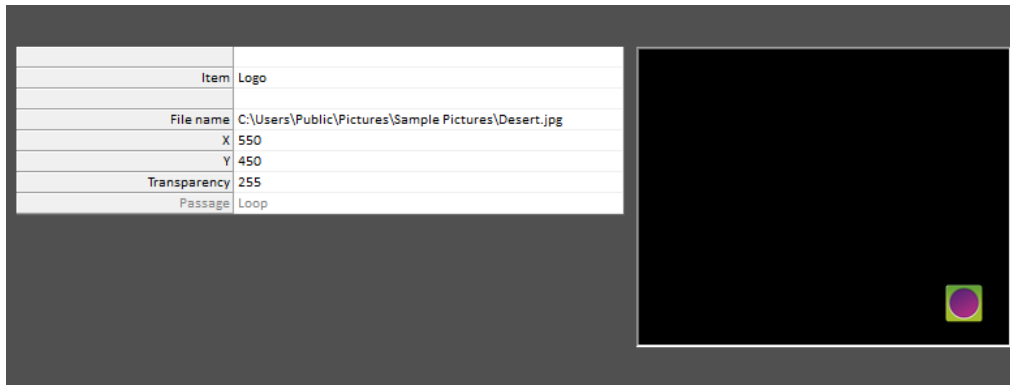
At “Level 0” it will aim you to set the source path:
 GPI, video switchers, or a Macro



While at “Level 1” you will be able to choose from several different options

With “Level 0” we mean all the events that can’t be timed but that coincide with the start of a video clip, and for this reason can’t be associated to “Broadcast event” such as Video Switchers, devices, commands. With “Level 1” we mean all that operations that can be timed also after the start of the video clip such as the overlapping of a logo.

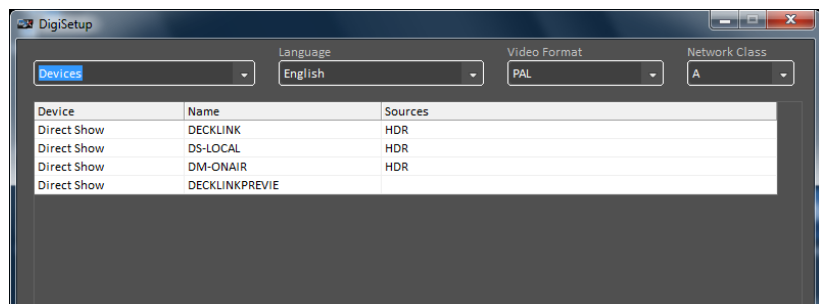
For example: choosing “Positioning Logo” it will open this specific dialog window:



2.2 DEVICES

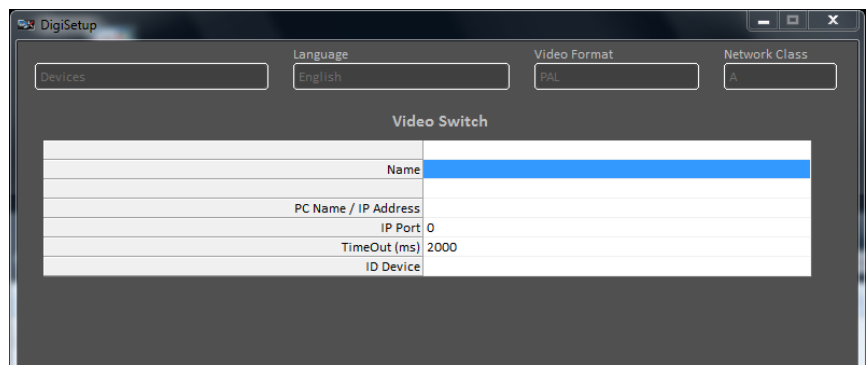
With “Devices” we identify all the physical equipments linked to the broadcasting system. Digisetup will show two main category of equipments.

- Switcher 1
- DeckLink Video Card
- DS-LOCAL
- DM-Onair

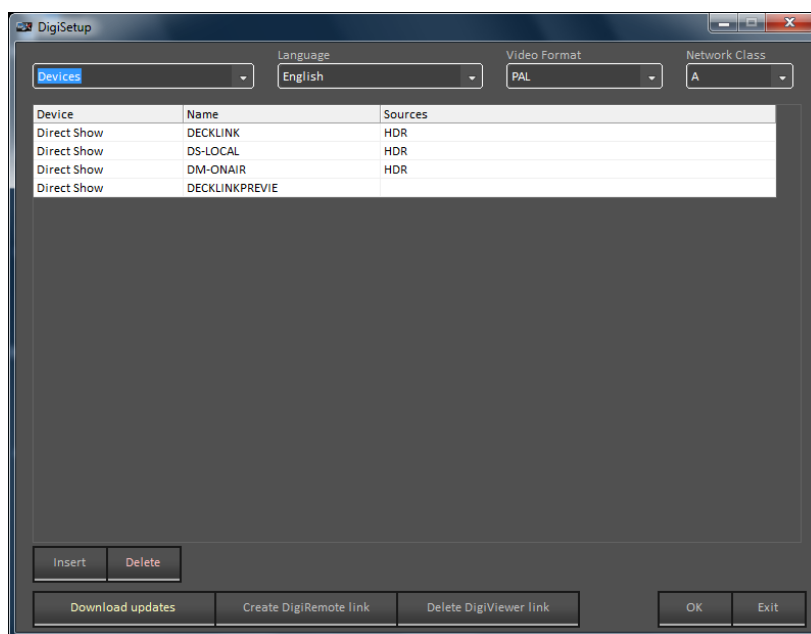


The first one is dedicated to the Video Switcher and the signal routing, where it will be necessary to set:

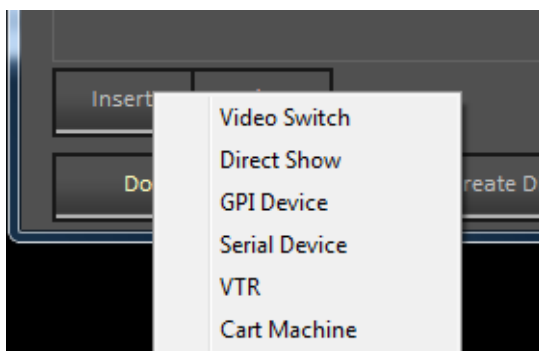
- Name of the PC/ IP address
- IP Port
- Time Out



The second one, shown as “Direct Show”, includes all the multimedia drivers used on Windows.



It is possible to add more devices, selecting the category on the pop-up box that will appear clicking on “Insert”.

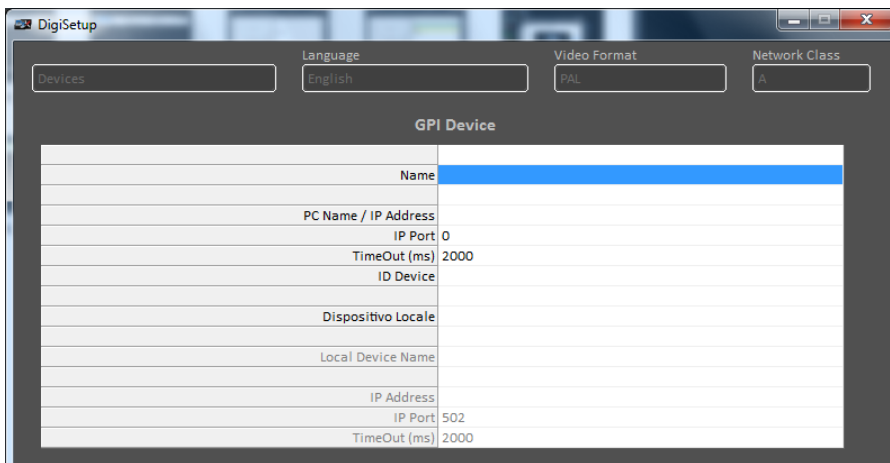
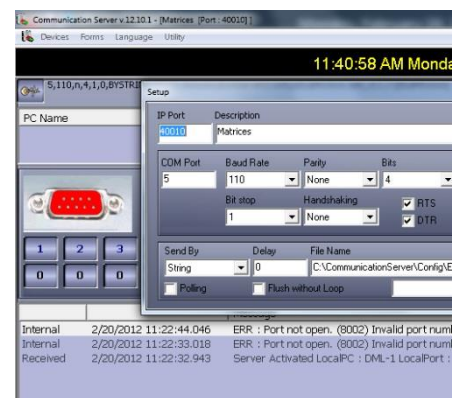


2.3 COMMUNICATION MANAGER

The management of all the linked equipments is operated by “Communication Server” a specific software that manages the IP communications between all the devices that compose the broadcasting system.



All the settings defined from the “Communication Server” will be used from Digi-Broadcast to control the device on all the On-air operations.



Digi-Broadcast is an automatic broadcast software that plays video files elaborated from Digiware and controls automatically, video switchers, VCR, robots and external devices.

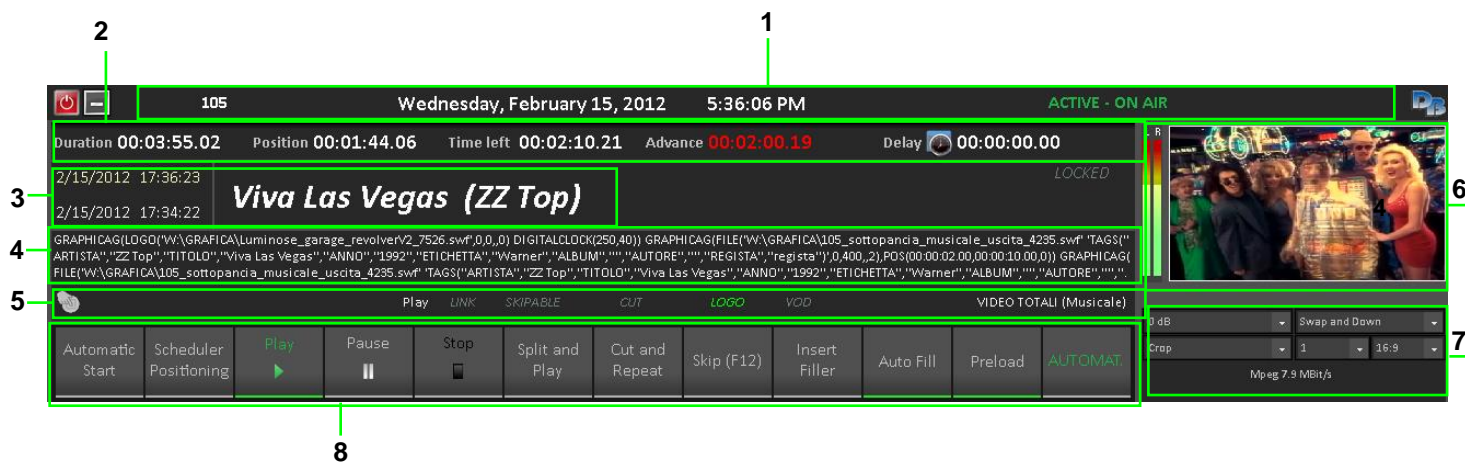
The following screenshot represents the main Digi-Broadcast window and could be divided into three main parts:

The screenshot shows the Digi-Broadcast software interface. It is divided into three main sections:

- On-Air:** This section at the top displays the current broadcast status. It shows the channel number '105', the date and time 'Wednesday, February 15, 2012 5:36:06 PM', and the status 'ACTIVE - ON AIR'. The current program is 'Viva Las Vegas (ZZ Top)'. It includes a video preview window on the right showing a group of people. Below the program name are various control buttons like 'Play', 'Pause', 'Stop', 'Split and Play', 'Cut and Repeat', 'Skip (F12)', 'Insert Filler', 'Auto Fill', 'Preload', and 'AUTOMAT'. There are also indicators for 'Duration', 'Position', 'Time left', 'Advance', and 'Delay'.
- Playlist:** This section in the middle lists the upcoming items in the broadcast schedule. Each item includes a thumbnail, a duration, a title, a start time, a source file path, and various control options like 'Preload', 'RECORDED MARKED', 'LINK', 'SKIPABLE', 'CUT', 'LOGO', and 'VOD'. The items listed are:
 - 2. BUMPER legend audio4
 - 3. Stay The Night (James Blunt)
 - 4. BUMPER TOP 40 - USA V3
 - 5. Love Thing (Tina Turner)
 - 6. BUMPER - 105 - 01 WEEKEND
 - 7. Anarchy In The U.K. (Sex Pistols)
- Functions:** This section at the bottom contains a row of buttons for 'Filler', 'Hot Key', 'Macro', 'Emergency', 'Devices', and 'Scheduler'. It also features the 'AXEL' logo and version information 'v.13.2.3'. On the far right, there is a log of system events.

3 ON-AIR

This is the section that contains all the elements information, options and commands connected to the played clip and the daily schedule.

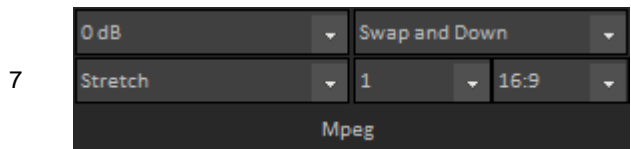


- 1 Wednesday, February 15, 2012 5:36:06 PM Date and Time of the system
- ACTIVE - ON AIR System Status
- 2 Duration 00:03:55.02 Total length of the On-air clip
- Position 00:01:44.06 Position of the On-air clip
- Time left 00:02:10.21 Remaining time of the On-air clip
- Advance 00:02:00.19 Advance / Delay of the played clip calculated from the Exported Digiware's schedule
- Delay 00:00:00.00 Advance/Delay in comparison with the next locked clip
- 3 2/15/2012 17:36:23 Schedule's date and time exported from Digiware
- 2/15/2012 17:34:22 Effective date and time of payout
- VIDEO TOTALI (Musicale) Category (the information is loaded from the clip's form edited in Digiware)
- Viva Las Vegas (ZZ Top) Name of the clip.
- 4 GRAPHICAG(LOGO('W:\GRAFICA\Luminosa_TOP40_5462_ol.d... Macro (command) linked to the played clip.
- 5 Manual stop
- Play Broadcasted clip status
- LINK SKIPABLE CUT LOGO VOD Clip parameters



6

Audio Level and On-air monitor of the on-air clip.



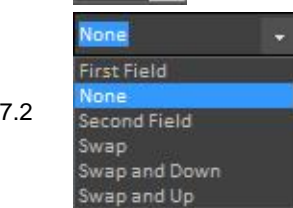
7

On-air clip A/V parameters (values can be also modified inside the clip form into Digimedia section)



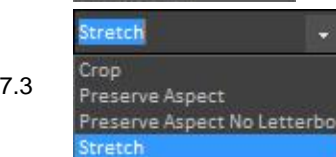
7.1

Modify the audio level of the on-air clip.



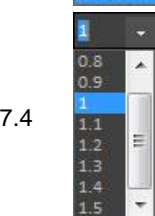
7.2

Define and change the order of the fields.



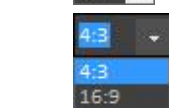
7.3

Resolution resizing of the on-air clip



7.4

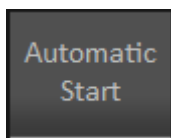
Zoom Function



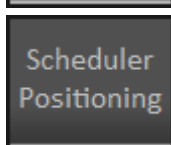
Format 4:3 / 16:9

In this section it will show the main functions from the buttons “Play”, “Stop” etc.. The “On” status is shown as the same button in green version.

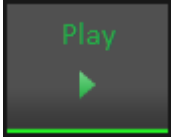
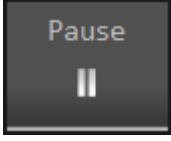
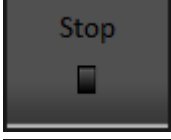
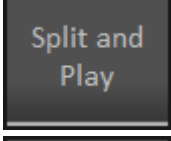
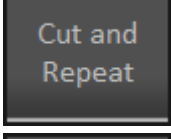
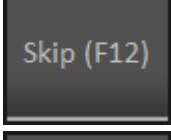
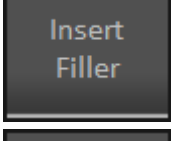
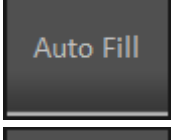
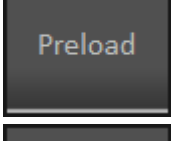
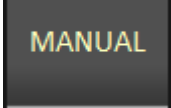
8



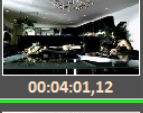
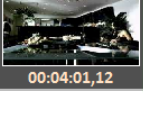
Places the schedule at the current time, prepares clips and starts broadcasting the schedule with time delay 0 (automatically trim the clip to be transmitted).



Places the schedule at the current time.

	Plays the scheduled clip.
	Gets in pause the on-air clip.
	Stops the on-air clip.
	Stops the on-air clip, plays the next one scheduled and re-starts the previous clip from the break point (it will be added next).
	Stops the on-air clip and re-starts it from the beginning.
	Stops the on-air clip and jumps to the next one.
	Force the insertion of a “Filler Clip” into the schedule (when not inserted automatically from the automation).
	Automatic insertion of a “Filler Clip” when the player is in advance respect to the scheduled time. NB: It will consider for inclusion the next clip with locked hour, this control is carried out in the next 20 clips from the one onair at this moment
	Force the pre-loading of the next clip to allow the operator to jump on it and go on-air quickly.
	Shows the “mode” the system is playing the schedule NB: when “manual” mode is ON, the counter “Remaining Time” will be displayed in red to alert that at the end of the played clip the system will be stopped.

4 PLAYLIST

2	 00:03:06,23	00:00:51 MUSIC 06/09/11 14:07:56	Umbrella (The Baseballs) GRAPHICAG(FILE("W:\GRAFICA\RMC_Sottopancia_Oro_Entrata_5007.swf" TAGS("ARTISTA","The Baseballs"), Preload RECORDED MARKED LINK SKIPABLE CUT LOGO VOD VIDEO TOTALI	LOCKED 12:57:41 12:57:41	HDR - DECKLINK Mpeg FILLER EMERGENCY
3	 00:04:01,12	00:03:58 FILLER 06/09/11 14:11:03	Always On Time (Ja Rule feat. Ashanti) GRAPHICAG(FILE("W:\GRAFICA\RMC_Sottopancia_Oro_Entrata_5007.swf" TAGS("ARTISTA","Ja Rule feat. As. Arranged RECORDED MARKED LINK SKIPABLE CUT LOGO VOD VIDEO TOTALI (Musical)	LOCKED	HDR - DECKLINK Mpeg FILLER EMERGENCY
4	 00:04:01,12	00:07:59 FILLER 06/09/11 14:15:05	Always On Time (Ja Rule feat. Ashanti) GRAPHICAG(FILE("W:\GRAFICA\RMC_Sottopancia_Oro_Entrata_5007.swf" TAGS("ARTISTA","Ja Rule feat. As. Arranged RECORDED MARKED LINK SKIPABLE CUT LOGO VOD VIDEO TOTALI (Musical)	LOCKED	HDR - DECKLINK Mpeg FILLER EMERGENCY

Under the “Play”, “Stop” and “Position” buttons are displayed the following six events on the schedule. Each event has specific buttons and information:

1 
00:03:06,23

2 



3 00:00:51
2/15/2012 17:44:13
2/15/2012 17:42:07

4 MUSIC
Umbrella (The Baseballs)
Preload
Arranged
RECORDED MARKED LINK SKIPABLE CUT LOGO VOD
LOCKED
12:57:41
12:57:41

Clip number on the schedule, reference thumbnail and length of the clip.

Skip the selected clip.

Manual Start of the event.

Manual Stop of the event.

Playout count down of that clip.

Schedule Date and Time of the clip exported from Digiware.

Date and time of the effective playout of the clip.

Clip category (the information is loaded from the clip's form edited in Digiware)

Name of the clip.

The clip has been checked and preloaded, ready to be played.
NB: The preload function forces the preloading if not preloaded automatically.

The clip was checked and is waiting to be preloaded.

Clip properties.

The clip has a locked “On-air time” (min and max range time).
NB: This function could be defined also from the operator in this section and not only from Digiware.

HDR - DECKLINK
Mpeg

FILLER

EMERGENCY

Type of device that will be used for playing.

Video format.

Show the list of the "Filler clips".

Selecting one clip from the schedule and pressing "Filler", the selected clip will be replaced with the selected filler.

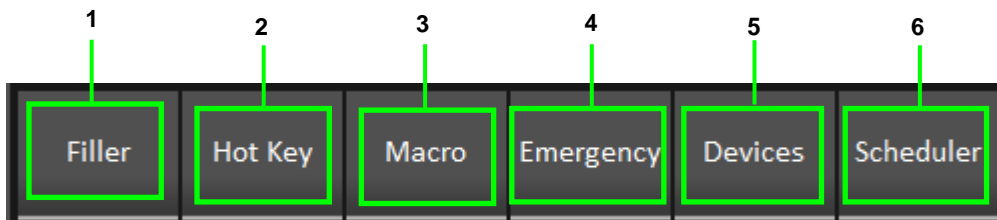
Show the list of the "Emergency clips". Selecting one clip from the schedule and pressing "Emergency", the selected clip will be replaced with the selected emergency clip.

5 FUNCTIONS

In the lowest part of the screen are placed the buttons that allow you to get into other Digi Broadcast sections.

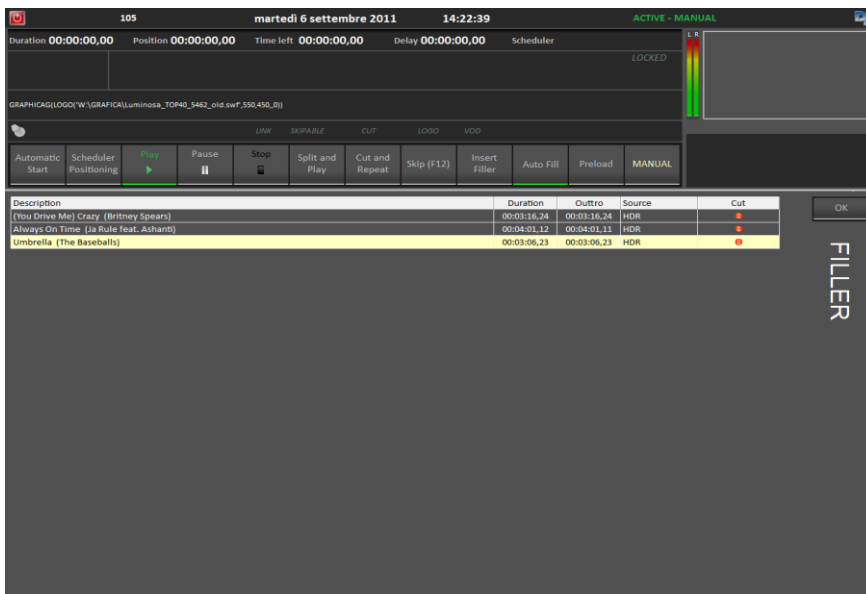
```
06/09/11 14:06:57 Manual insert Filler. Position : 7 [Always On Time (Ja Rule)
06/09/11 14:06:54 Manual insert Filler. Position : 6 [(You Drive Me) Crazy (Br
06/09/11 14:06:50 Manual insert Filler. Position : 5 [Umbrella (The Baseball
06/09/11 14:06:48 Manual insert Filler. Position : 4 [Always On Time (Ja Rule)
06/09/11 14:04:53 Automatic insert Filler. Clip number < 4 [00:03:06,23 <00
```

Show all the processes done from the system.



5.1 FILLER

Pressing “Filler” button, will be displayed the following section:



It will show the complete list of filler clips (defined by Digiware) available to be automatically added, if “AUTOFILL” is on, or manually by the button “Insert Filler”.

For each clip it will display the following information:

Description	(You Drive Me) Crazy
Duration	00:03:16,24
Outtro	00:03:16,24
Source	HDR

Name of the clip.

Lengtht of the clip.

Marked point where the clip can be stopped.

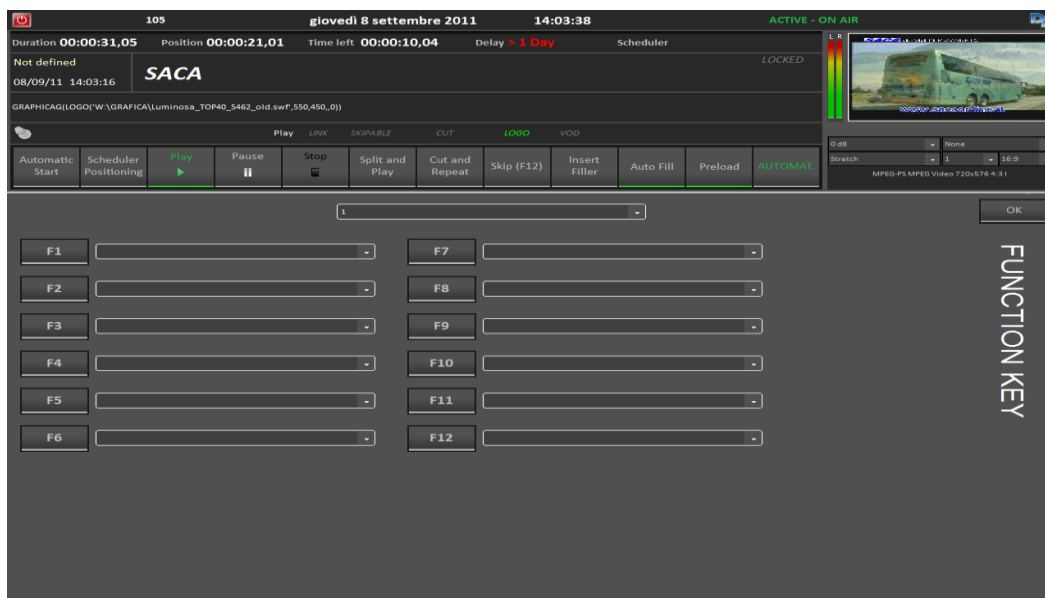
Device used for the ployout.



“Interruptible clip”. If the led is green, means that the clip could be interrupted, otherwise, if the led is red, the clip will be added to the schedule only if it can be played for the complete length.

5.2 HOT KEYS

Pressing “Hot Key” button, will be displayed the following section:



Through the “Hot Key” function, it will be possible to combine videoclips to the key from F1 to F12 of your keyboard. In this way you’ll be able to use the system in a live mode or as a Jingle Machine. It is possible to set and save several keyboards.



Dropdown menu where you can select the clip to link to a key.



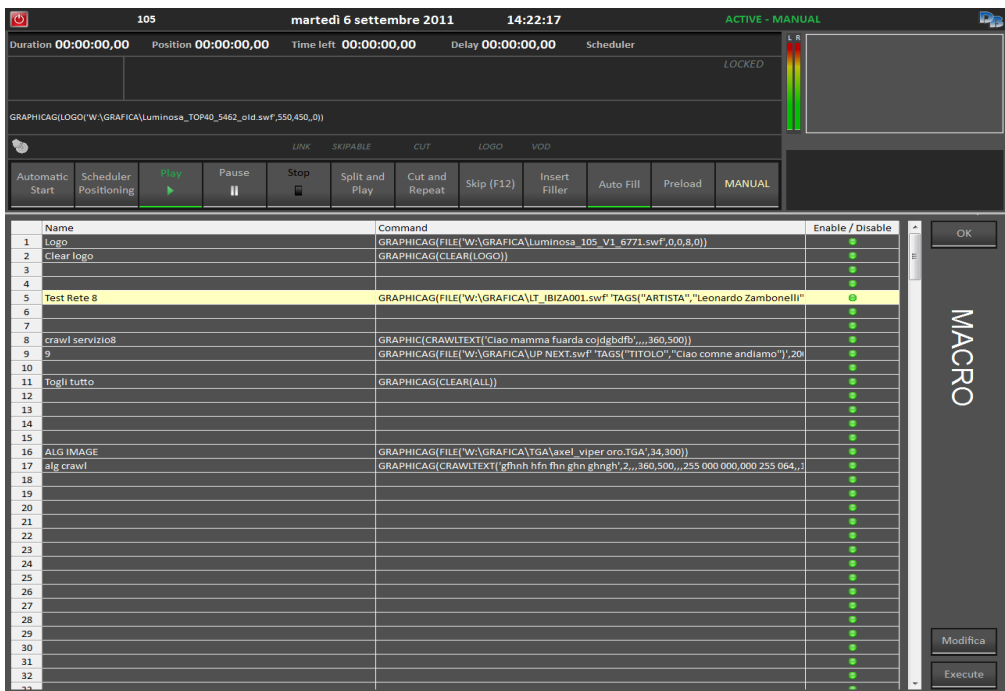
Key button linked to the clip.



Dropdown menu where you can select the clip to link to a key.(for each button is possible to set more than a clip).

5.3 MACRO

Pressing “Macro” button, will be displayed the following section:



A Macro is a command that could be connected to a key, or a clip. It is a useful way to automate operations you can select from a dropdown menu.

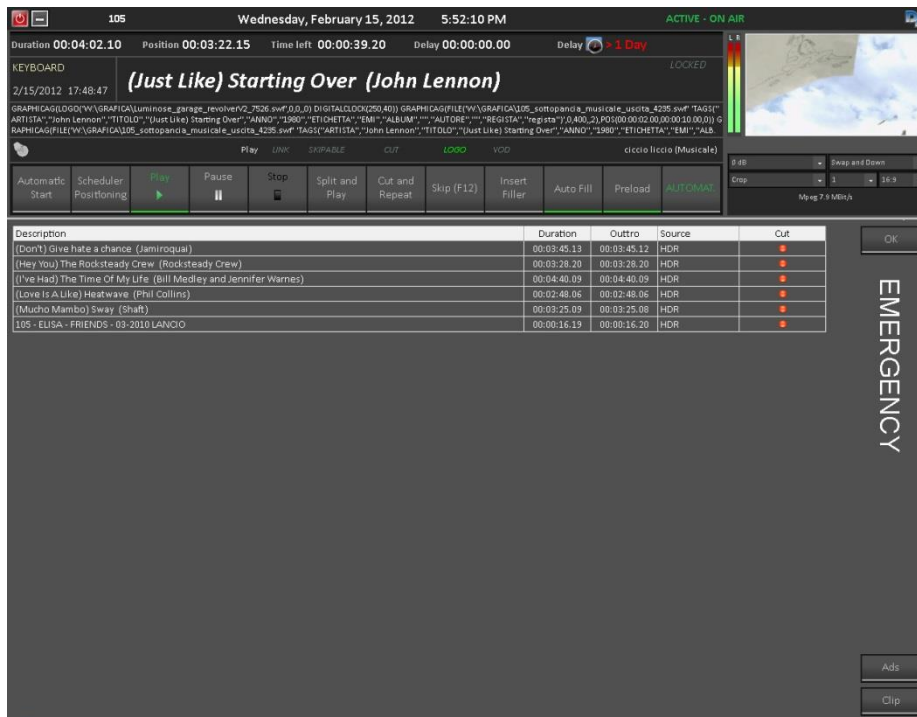
These automatic commands could generate: switching function on an external video switcher, GPI, start and stop of logos and crawls etc..

For each “Macro” it will display the following information:

Name	Name of the clip.
Logo	
Command	Associated command.
GRAPHICAG(FILE('W:\GRAFICA\Luminosa_105	
Enable / Disable	Displayed in two status. If the macro is on (green led) or disabled (red led).
●	

5.4 EMERGENCY

Pressing “Emergency” button, will be displayed the following section:

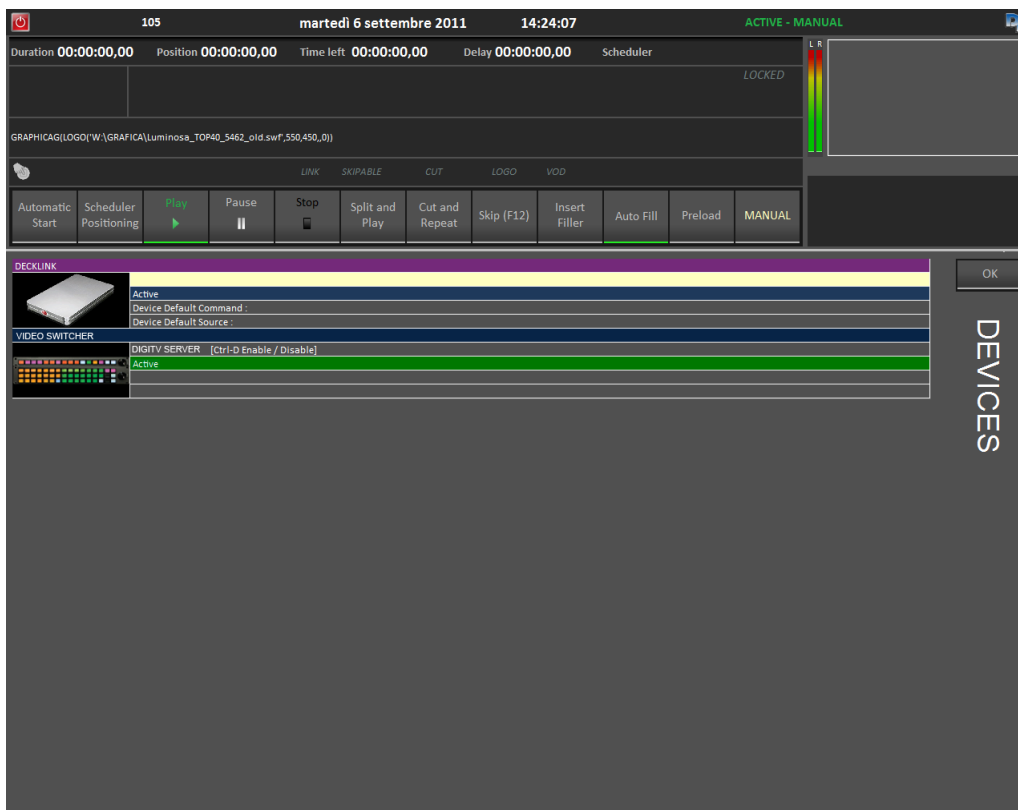


For each clip will be displayed the following information:

Description	(Don't) Give hate a chance (Jamiroquai)	Name of the clip.
Duration	00:03:45.13	Length of the clip.
Outtro	00:03:45.12	Marked point where the clip can be stopped.
Source	HDR	Device used for the playout.
Cut	●	Displays if the clip is interruptible (green led) or not (red led).

5.5 DEVICES

Pressing “Devices” button, will be displayed the following section:



For each device will be displayed the following information:

1

























Reference thumbinal.
In this sample is represented a Blackmagic DeckLink video card (HDR).

Video Switcher thumbinal.

GPI Device (General Purpose Interface).

Outputs	Inputs
1	0
2	1
3	1
4	2
5	3
6	4
7	5
8	6

Clicking two times on the icon “Video Switcher” it is possible to see the status of the video cross connections.

	Inputs	Outputs
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

Clicking two times on the icon "GPI" it is possible to see the status of the inputs and outputs.

When the device is not active, it will be displayed with a red cross on it.

Active

Device Default Command :

Device Default Source :

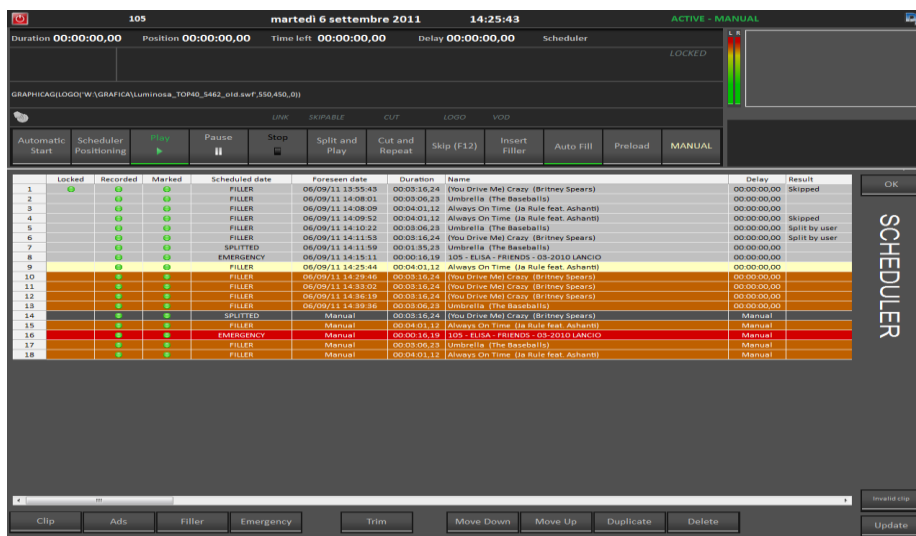
Device Status.

Display the command associated to the device.

Display the command associated to the relative source.

5.6 SCHEDULE

Pressing “Schedule” button, it will display the schedule previously exported from Digiware.



For each row of the schedule will be shown the following information:

Locked
🟢

Displays if the clip has a locked playout time.

Recorded
🟢

Displays if the clip is recorded and stored in the videosever (green led) or not (red led).

Marked
🟢

Displays if the clip was recorded and marked (green led) or not (red led).

Scheduled date
2/15/2012 16:51:36

Date and time of the clip setted and exported from Digiware.

Foreseen date
06/09/11 13:55:43

Effective date and time of playout

Duration
00:03:16,24

Length of the clip

Name
(You Drive Me) Crazy

Name of the clip

Delay
00:00:00,00

Advance / Delay of the clip calculated from the exported Digiware schedule and the current status of broadcasting.

Result
Skipped

Displays possible instances that could compromise the correct playout of the clip. If everything is running in the right way, the field will be displayed empty of information.

Status
Executed

Display the current status of the scheduled clips.

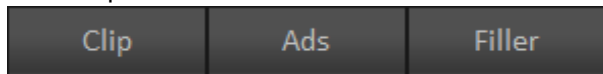
Device
DECKLINK

Device used for the playout.

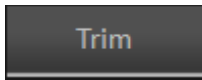
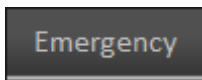
Video file
BUMPERTv_105_9289.mpg

Video file's name of the clip

In the lowest portion of the screen there are more buttons



This buttons allow you to filter the clips into the database thanks to the metadata added into Digiware.

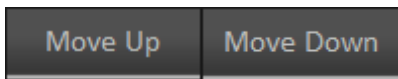


Choosing one of them you'll be able to choose quickly the file you want to play.

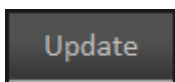
The trim button will open the section named Digi-Edit.



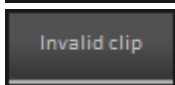
The control board of Digi-Edit allows you to trim and modify only the selected clip. It is not a global change, but the modification will be applied for that specific line of schedule.



Allows to surf the list with "Up" and "Down"



Reload the schedule refreshing all the parameters.



Displays all the invalid clips (missing, unmarked) and that can't be broadcasted.

The list of the invalid clips will be displayed in the following window.

