

EMS

Easy Media Suite
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Easy OnAir

User Manual

Easy OnAir v0.9.0 build 71

User Manual v0.6000

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Manual Conventions

Italic text indicates a text on software UI.

Underlined text indicates a key stroke on keyboard.

Bold and italic text indicates graphics shown in this manual.

Symbols



A note provides important information, recommendations, reminders and suggestions.



The See Also notes refer to other relevant sections, chapters or manuals.



The caution paragraph indicates a potentially dangerous operation.

Using the Mouse

Click	Press and release the left mouse button.
Right-click	Press and release the right mouse button.
Double-click	Click the left mouse button twice in rapid succession.
Drag&drop	Move the mouse while holding down the left mouse button and then release.

Installation



Before the installation process, you must ensure that a file archiver software is installed on the computer to extract installation files from compressed file.



If the computer has an antivirus software; before extracting installation files from compressed file, you must ensure that antivirus doesn't block all executable files by setting it's security level lower or deactivating it until installation process is over.



Before the installation process, you must ensure that the driver of graphics card is properly installed.

Introduction

Easy OnAir runs with the NTSC, PAL, HD, SD files on the same playlist. It gains the administration of users because of its user-friendly interface and 7/24 stable work.

Easy OnAir plays the video files with HD / SD, multi-format and multi resolution with the mix of audio files in different sample rates. It automatically performs up-down conversion operations for you according to the set output.

While Easy OnAir playlist is on air, it can be dynamically changed and playlist time is automatically updated with change. New playlist can be created during on-air. A playlist can be looped; a single video file can be repeated as well.

Playlist can be instantly paused, stopped, or changed during the broadcast. This process is done at the end of the buffer or in real time on demand.

The playlists, activated on a desired day and time, can be arranged with the scheduled playlist module. By the schedule module, the system can split the video files virtually without causing any change. It is possible to monitor the broadcast output from the computer screen.

A preview of any video on the playlist can be played during the broadcast. The trimming operations on video can also be done in real time without rendering.

The volume can be controlled through the program. There is time indicator on the program showing the time of video clips and how much time is left to the end in the flow of the broadcast.

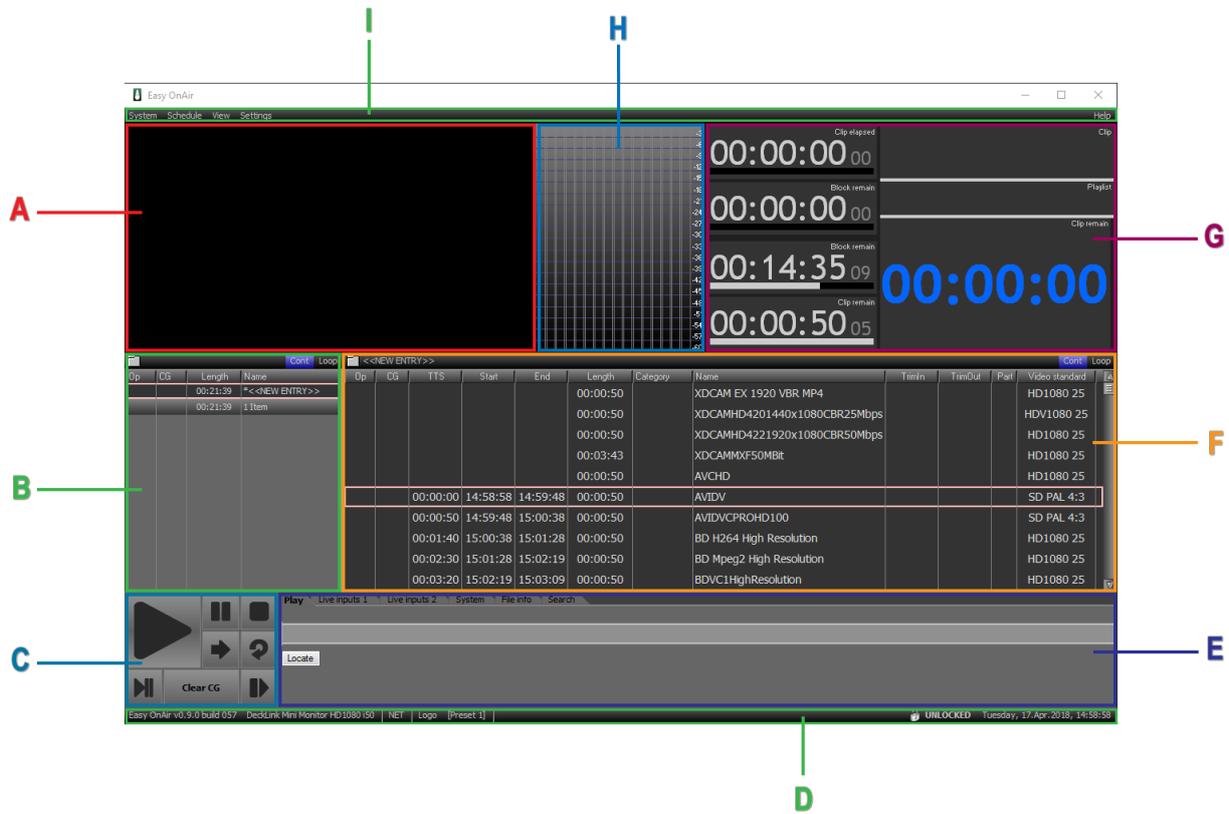
Playlist can be controlled by keyboard shortcuts. In addition, there is no restriction on number of video files added to the playlist. You can easily add your files by drag and drop method or by searching for the name of the file on the disk.

Easy OnAir automatically saves the broadcast traffic, the user actions and the history of system on a daily basis.

Easy OnAir offers the advantage of character generator interface working integrated. It displays logo, animations, crawls, rolls or different graphics on the playlist output with the character generator interface.

In addition to overlaying time, counter, up-down, bottom-up, sliding from left to right, right to left, and running scripts, image files in the playlist by planning, you can also instantly overlay them on-air output by manually.

Overview of the User Interface



A: Preview, B: Playlist panel, C: Control Panel, D: Bottom Panel, E: Info Panel, F: Content Panel,

G: Timers Panel, H: Audio Bar Panel, I: Top Panel

Preview

You can monitor the item in the playlist which playing.

Playlist Panel

You can import playlist project, export playlist project or create new playlist project. Playlist project includes all the playlist in Playlist Panel. You can also import an existing playlist by drag&drop into Playlist Panel. While holding down the Ctrl key after selecting playlists in Playlist Panel, you can duplicate playlists by dragging and dropping the playlists into the Playlist Panel.

Control Panel

You can use play, pause, stop, play next, jump, que, que pause and clear cg buttons.

Bottom Panel

You can see the version of Easy OnAir, configure output of Easy OnAir such as resolution, framerate. After assigning Cg preset, you can play Cg graphics with *Logo* button. You can lock or unlock Easy OnAir interface.

Info Panel

Progress bar on *Play* tab gives information about clip remain time and clip elapsed time. You can also move clip elapsed time if *Pause* button is pressed.

You can assign a live input into a live input window and preview it on *Live Inputs* tab.

System tab gives information about system performance such as cpu, memory usage. You can also see video and audio frame cache information, que count and duration.

If a clip is selected in the playlist, *File Info* tab gives media information such as video format, duration, video resolution, video framerate, audio channel(s).

You can find a clip in the playlist(s) by searching on *Search* tab.

Content Panel

You can insert items in playlist such as clips, live inputs, stop, wait, cg show and cg clear events and more.

Clips can be split, trimmed with mark in and mark out timecode points and checked about corruption.

There has also additional information sections, you can get video standard, video resolution, framerate, clip duration, audio channel count and audio sampling rate information. There has timecodes information which *Start*, *End*, *Time to Start* for each item in playlist.

Timers Panel

You can monitor time information on this panel. *Clip Elapsed*, *Clip Remain*, *List Remain*, *Block Remain* and *Block Elapsed* sections are based as default on interface. Time information are related with clip and playlist which is playing.

Audio Bar Panel

Audio Bar Panel can be customized with audio channel count, row count and size. Audio level lines are shown right side of this panel.

Top Panel

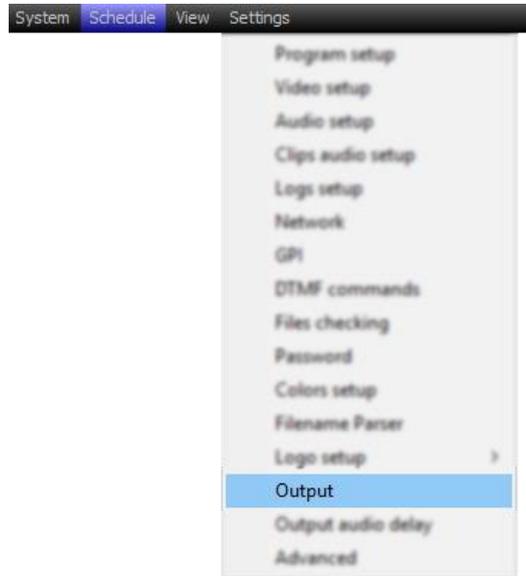
Main menu is shown at the top of the window. It contains commands as shown below.

- System > Exit
- Schedule
- View > Preview, Audio Meter, Clock, Clip Total, Clip Elapsed, Clip Remain ...
- Settings > Program setup, Video Setup, Logs Setup, Password, Output ...
- Help > License, Shortcuts, System Info, About

Startup Configuration

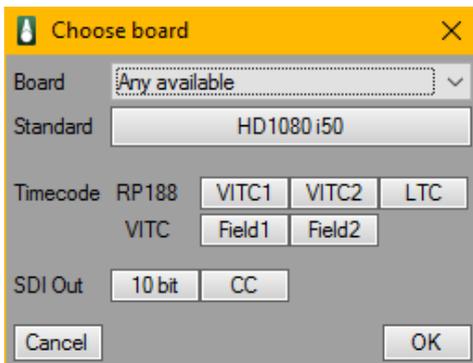
Easy OnAir has 3 different type outputs which are SDI, NDI, VGA.

If SDI output will use, server has to be video editing card such as Black Magic Decklink, Bluefish... When Easy OnAir is opened, output configuration is needed to completed. Click Output in the submenu of *View* on top menu bar as shown on **Graphics 1**.

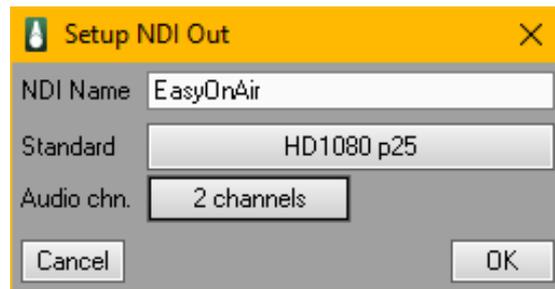


Graphics 1

Output window will change depend on output types. SDI and VGA output window are same and shown on **Graphics 2**, NDI output window is shown on **Graphics 3**.



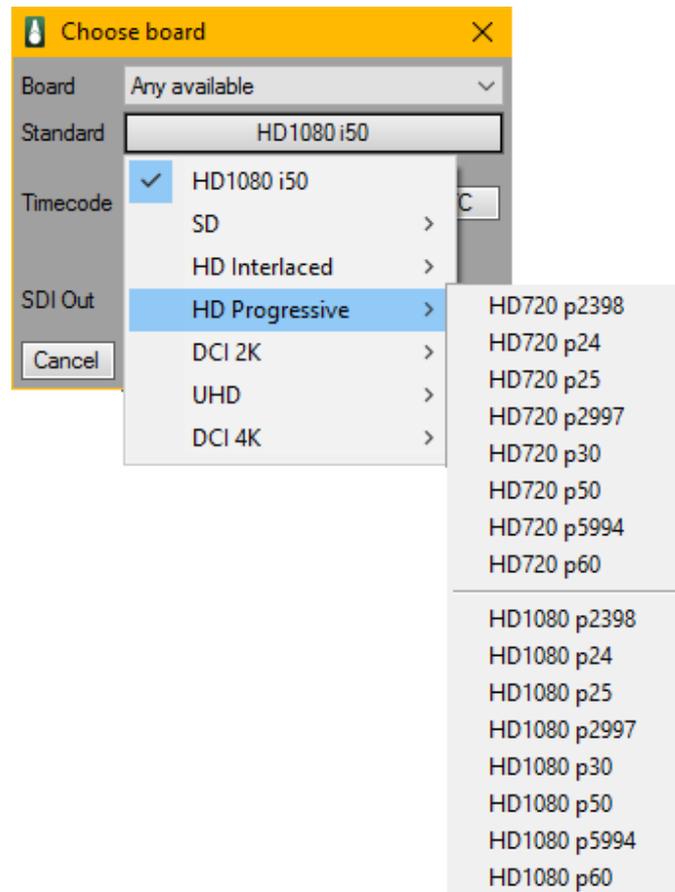
Graphics 2



Graphics 3

Startup Configuration

If Easy OnAir output is SDI, you need to select video editing card and its standard. If Easy OnAir output is VGA or NDI, you just need to select standard for output as shown on **Graphics 4**. In case of Easy OnAir SDI output, *any available* is default in *Board* option which makes the first available video editing card is chosen on output window. If the system has more than one video editing card, or the video editing card has more than one output, another output may be chosen through this option.



Graphics 4



Easy OnAir VGA output is especially for virtual output. You also need to install DtekLive module.

Easy OnAir Control

- ▶ (*Play*) : Plays a chosen or cued video file.
- ⏸ (*Pause*) : Pauses on air video file.
- (*Stop*) : Stops on air video file.
- ➡ (*Next*) : Jumps to next file.
- ↺ (*Jump*) : Jumps to chosen file.
- ⏮ (*Cue*) : Cues chosen file.
- ⏭ (*Stop Cue*) : Stops on air and Cues chosen file.
- Clear CG* : Clear all CG Graphics.



Graphics 5

Using Easy OnAir

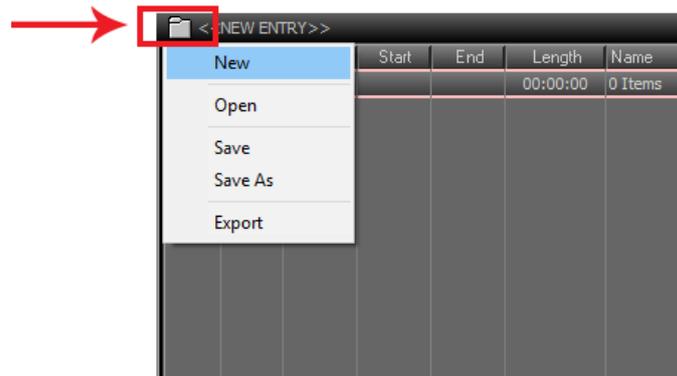
Using Playlist

Playlist is the list contains video clips, live inputs, cg graphics and events such as wait, stop...

Creating a Playlist

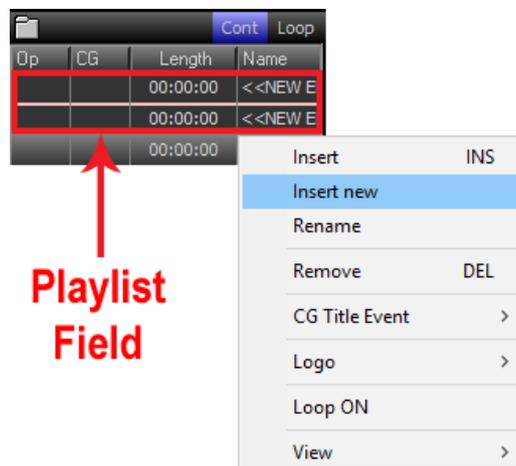
You can create new playlist in 3 ways as follow below.

You can click menu of  icon on Content Panel and select *New* in menu list as shown on *Graphics 6*.



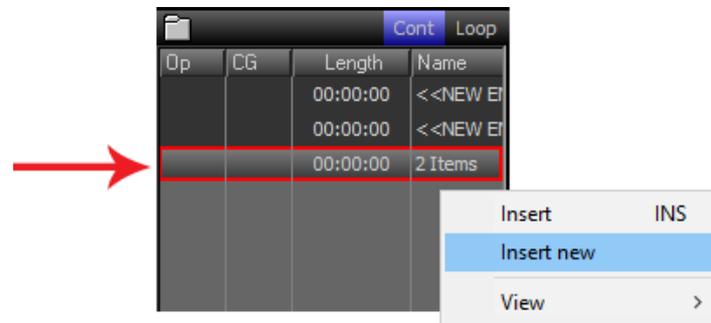
Graphics 6

You can right-click menu of playlist field on Playlist Panel and select *Insert new* to create new blank playlist as shown on *Graphics 7*.



Graphics 7

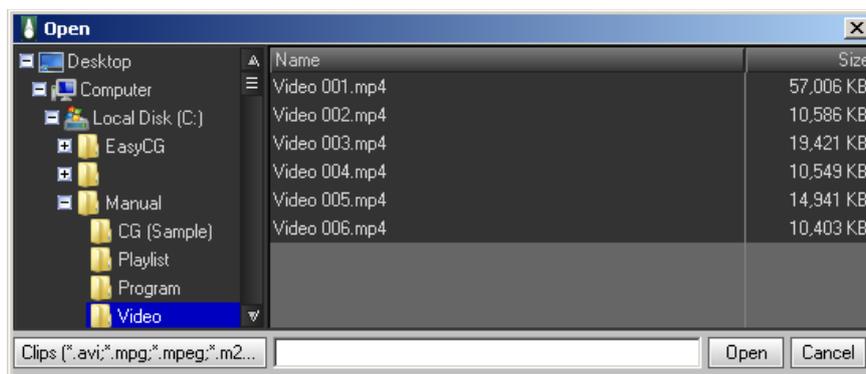
This step can also be done by clicking on the total playlist count under the playlist field as shown on *Graphics 8* and it will appear as a blank playlist.



Graphics 8

Adding Video File on Playlist

You can add video files into playlist via the pop-up window, as shown on *Graphics 9*, that shows up by clicking Insert on right-click menu of content field or pressing Insert. You can also add video files by drag&drop directly from file explorer of OS to content field. Supported file formats: *.avi; *.mpg; *.mpeg; *.m2p; *.m2v; *.m2ts; *.mp4; *.m4v; *.ts; *.mov; *.flv; *.f4v; *.wmv; *.mkv; *.mxf; *.swf



Graphics 9

Cued video files on playlist are played by clicking *Play* this on right-click menu of video file, or ► button on the control menu; or by pressing Space.

Video files on playlist are removed by clicking *Remove* on right-click menu of video file in content field, or by pressing Delete.



A video file that is cued or playing cannot be removed.

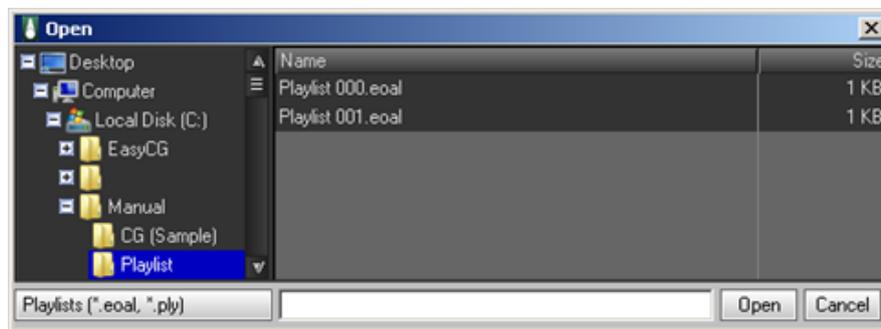
Save / Open a Playlist

You can save a playlist by clicking *Save As* on left-click menu of icon  which is marked with red color and shown on **Graphics 10**.

<<NEW ENTRY>>			
	Start	End	Length
New	14:26:39	14:30:47	00:04:07
Open	14:30:47	14:34:11	00:03:24
Save	14:34:11	14:37:58	00:03:47
Save As	14:37:58	14:41:18	00:03:20
	14:41:18	14:44:45	00:03:26
Export	14:44:45	14:49:07	00:04:22

Graphics 10

Open is chosen on the same menu to open a saved playlist and a window shows up as shown on **Graphics 11**. The file path of playlist is chosen and *Open* is clicked after choosing the playlist.



Graphics 11

Insert from list(s) where is right-click menu of content field, is chosen to insert content from saved playlist(s) to the **playlist** which selected as shown on **Graphics 12**. The contents of chosen playlist are inserted where the cursor is on the playlist.

<<NEW ENTRY>>						
Op	CG	TTS	Start	End	Length	Name
		00:00:00	15:30:34	15:30:54	00:00:20	Insert
		00:00:20	15:30:54	15:31:14	00:00:20	Insert from list(s)
		00:00:40	15:31:14	15:31:34	00:00:20	Insert live
		00:01:00	15:31:34	15:31:54	00:00:20	Insert event
		00:01:20	15:31:54	00:01:20		Insert note
						Play this
						CG Title Event
						Inside Events
						Subtitles
						CCaptions
						Logo
						Loop ON
						Trim In/Out
						Clip Check
						Note
						Copy
						Remove
						View

Graphics 12

If contents of a playlist are updated and has unsaved changes, an asterisk sign (*) appears on the beginning of its name on playlist field as shown on **Graphics 13**.

Op	CG	Length	Name
		00:01:20	*<<NEW ENTRY>>
		00:59:42	*<<NEW ENTRY>>
		00:39:48	*<<NEW ENTRY>>
		00:26:52	*<<NEW ENTRY>>
		02:07:43	4 Items

Graphics 13

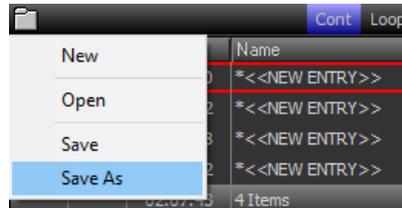
You can insert playlist file into playlist by drag&drop. *Note* events will automatically will be added at begin and end of inserted playlist as shown on **Graphics 14**. Note events consists of playlist name and indicates its position.

Op	CG	TTS	Start	End	Length	Name
		00:00:00	17:16:50	17:17:10	00:00:20	Video 001
		00:00:20	17:17:10	17:17:30	00:00:20	Video 002
		00:00:40	17:17:30	17:17:30		Begin Sample Playlist
		00:00:40	17:17:30	17:17:50	00:00:20	Video 006
		00:01:00	17:17:50	17:18:10	00:00:20	Video 007
		00:01:20	17:18:10	17:18:30	00:00:20	Video 008
		00:01:40	17:18:30	17:18:50	00:00:20	Video 005
		00:02:00	17:18:50	17:18:50		End Sample Playlist
		00:02:00	17:18:50	17:19:11	00:00:20	Video 003
		00:02:20	17:19:11	17:19:31	00:00:20	Video 004
		00:02:40	17:19:31		00:02:40	10 Items

Graphics 14

Save / Open a Program

The program is the project file which consists of all playlists and video files in playlist and content fields. *Save As* on left-click menu of  icon at Playlist Panel as shown on **Graphics 15**, is chosen to save a program. An updated program is saved by choosing *Save* in the same menu. *Open*, in the same menu, is chosen to open a saved program. *New*, in the same menu, is chosen to create new program.



Graphics 15



Graphics 16

Continuity and Loop on Playlist

Cont and *Loop* buttons where are on upper side of playlist and content fields as shown on **Graphics 17**, allow playlists or contents to jump next, or to go into a loop.

If *Cont* button of content field is active, it plays all video files in playlist, unless it hasn't been interfered. If it's inactive, one video file plays and it stops. If *Loop* button of content field is active, one playlist goes into a loop.

Loop ON button on right click menu of content field on desired video file, is activated to create loop for only that file.

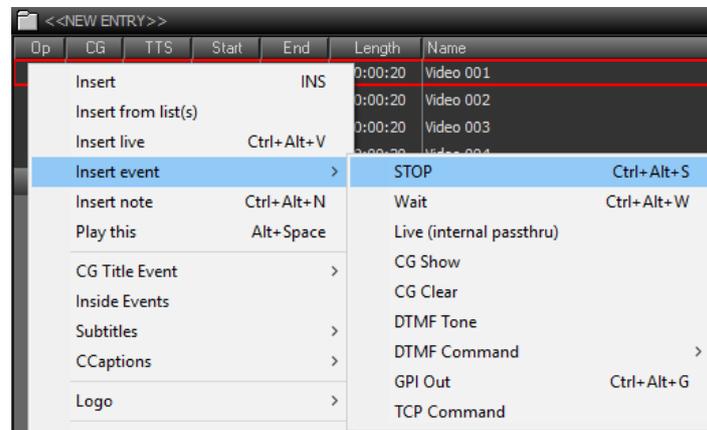
If *Cont* button of playlist field is active, until the list of playlists is come to the end, it acts as a whole and plays all playlists, unless it hasn't been interfered. There may be partial continuity by deactivating this *Cont* button and activating *Cont* to next buttons on right-click menu of each playlist. If *Loop* button of playlist field is active, it jumps from last video of last playlist on playlist field to first video of first playlist and loop is created.



Graphics 17

Playlist Events

It's the list where is in submenu of *Insert Event* on right-click menu of content field at Content Panel.



Graphics 18

STOP Event

When a *STOP* event is inserted into a playlist, it acts as the end of playlist and stops playlist.

It may be inserted anywhere on playlist by choosing *STOP* on submenu of *Insert Event* on right-click menu of content field. The inserted *STOP* event may be drag&drop anywhere on playlist.

Op	Start	End	Length	Name	TrimIn	TrimOut	Video info	Audio info
			00:05:11	Video 001			1280x720@25	44100x2
			00:03:43	Video 002			640x360@25	44100x2
	17:29:08	17:33:58	00:04:50	Video 003			480x270@30	44100x2
	17:33:58	17:33:58		STOP				
			00:03:33	Video 005			600x360@25	44100x2
			00:03:06	Video 004			640x360@29.97	44100x2
			00:03:50	Video 006			320x240@28.46	44100x2
			00:24:16	7 Items				

Graphics 19

Wait Event

Wait event pauses the playlist as long as the defined time and then jumps to next file.

The settings window, that pops up when *Wait* is clicked, where is on submenu of *Insert Event* on right-click of content field. It is shown on **Graphics 20**.



Graphics 20

Duration of the event, is set by entering the time information as Hour:Minute:Seconds to *Wait* box. The output stream during *Wait* event, is set on *Mode* box by choosing; *Last Frame* to hold last frame of last video file before wait event on the playlist or *Black* to send output a black frame.

Op	CG	TTS	Start	End	Length	Name
		00:00:00	17:39:15	17:39:35	00:00:20	Video 001
		00:00:20	17:39:35	17:39:55	00:00:20	Video 002
		00:00:40	17:39:55	17:39:55		Begin Sample Playlist
		00:00:40	17:39:55	17:40:15	00:00:20	Video 006
		00:01:00	17:40:15	18:40:15	01:00:00	Wait: Last frame
		01:01:00	18:40:15	18:40:35	00:00:20	Video 007
		01:01:20	18:40:35	18:40:55	00:00:20	Video 008
		01:01:40	18:40:55	18:40:56	00:00:01	Wait: Black
		01:01:41	18:40:56	18:41:16	00:00:20	Video 005
		01:02:01	18:41:16	18:41:16		End Sample Playlist
		01:02:01	18:41:16	18:41:37	00:00:20	Video 003

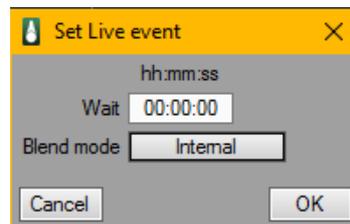
Graphics 21

Live Event

If the video editing card which Easy OnAir is transmitting to its output, has also an input; *Live* event transmits input signal to output.

The settings window, that pops up when *Live* is clicked, where is on submenu of *Insert Event* on right-click of content field, is as shown on **Graphics 22**. Duration of the event, is set by entering the time information as Hour:Minute:Seconds to *Wait* box.

Internal is default selected *Blend Mode*. Live event is especially a feature for old video editing cards, output will have key and fill feature to use such as at video mixers with DSK (Downstream Keyer).



Graphics 22

CG Show Event

CG Show, where is on submenu of *Insert Event* on right-click of content field, is one of the three ways to insert Easy CG layouts into Easy OnAir.

	Refer to Usage of Character Generator chapter for detailed information and usage of this event.
---	---

CG Clear Event

CG Clear, where is on submenu of *Insert Event* on right-click of content field, is clear command of Easy CG layout that has been inserted into Easy OnAir.

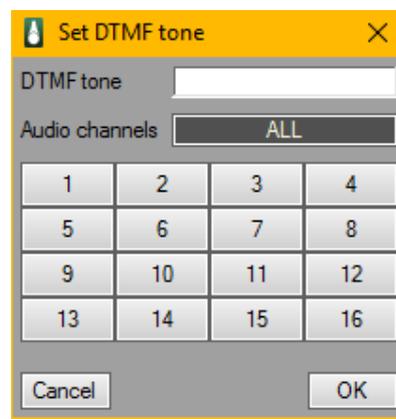
	Refer to Usage of Character Generator chapter for detailed information and usage of this event.
---	---

DTMF Tone Event

DTMF Tone event generates Dual-tone multi-frequency signaling (DTMF) cue tone on any selected audio channel as shown on *Graph 23*. *DTMF Tone* key is combination of the row and column frequencies as shown on *Table 1*.

	1209 Hz	1336 Hz	1477 Hz	1633 Hz
697 Hz	1	2	3	A
770 Hz	4	5	6	B
852 Hz	7	8	9	C
941 Hz	*	0	#	D

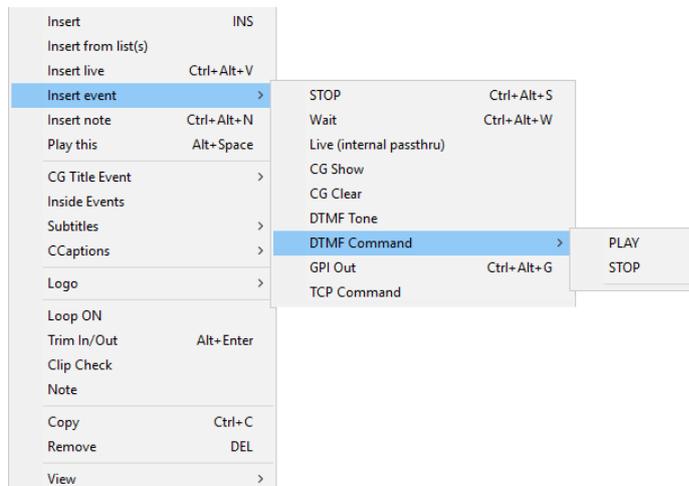
Table 1



Graphics 23

DTMF Command Event

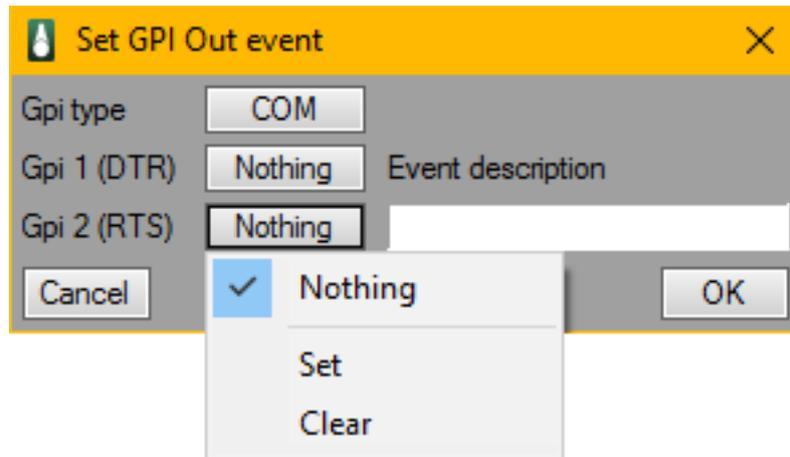
DTMF Command event is predefined DTMF Tone event as *PLAY* and *STOP* to control another Easy OnAir application. It is on submenu of Insert Event on right-click of content field as shown on *Graph 24*.



Graphics 24

GPI Out Event

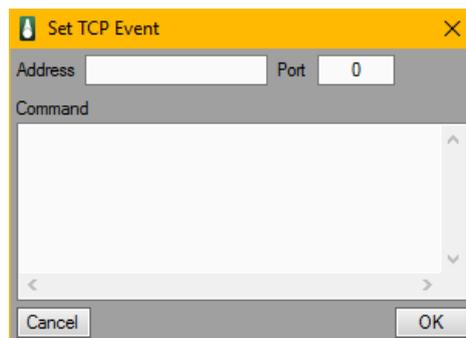
GPI Out event is on submenu of *Insert Event* on right-click of content field as shown on **Graph 25**. *GPI Out* event can be sent via RS-232 com port. GPI Out pairs are located at output pins DTR&RTS. *Gpi 1* generates a pulse on DTR, and *Gpi 2* generates a pulse on RTS. *Gpi 1(DTR)* and/or *Gpi 2(RTS)* can be set *Nothing*, *Set*, *Clear*. If *Gpi 1* and/or *Gpi 2* is set *Nothing*, it won't generate pulse. *Set* option is for high frequency pulse and *Clear* option is for low frequency pulse.



Graphics 25

TCP Command Event

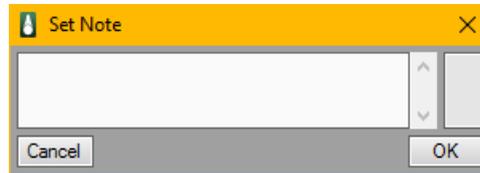
TCP Command Event is on submenu of *Insert Event* on right-click of content field. Third party application or hardware can be triggered to control over tcp/ip commands.



Graphics 26

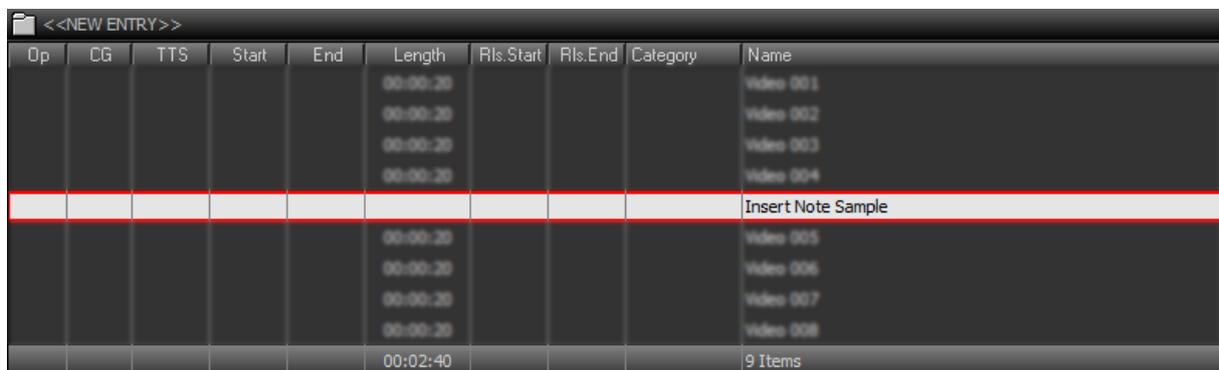
Insert Note to Playlist

Insert Note, on right-click menu of content field, is chosen to add notes into playlist. The popup window, that shows up when *Insert Note* is chosen, is as shown on **Graphics 27**. After typing a text into the area, *OK* is chosen.



Graphics 27

The note, that has been added between the video files on playlist, doesn't affect video flow. Inserted note may be drag&drop anywhere on playlist. Inserted note may be edited by double-clicking on it on playlist.

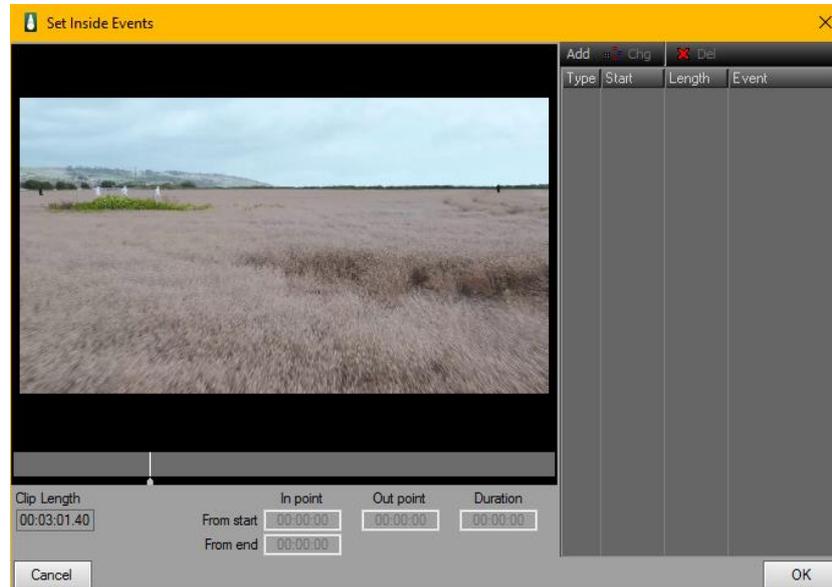


<<NEW ENTRY>>									
Op	CG	TTS	Start	End	Length	Pls.Start	Pls.End	Category	Name
					00:00:20				Video 001
					00:00:20				Video 002
					00:00:20				Video 003
					00:00:20				Video 004
									Insert Note Sample
					00:00:20				Video 005
					00:00:20				Video 006
					00:00:20				Video 007
					00:00:20				Video 008
					00:02:40				9 Items

Graphics 28

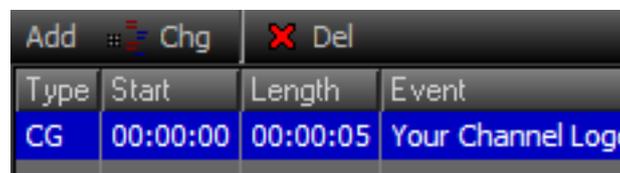
Inside Events

Inside Event, on right-click menu of content field, is chosen to add notes into playlist. The popup window, that shows up when *Inside Event* is chosen, is as shown on **Graphics 29**. *CG*, *GPI* and *DTMF Cue Tone* are the events which can add.



Graphics 29

There are three buttons at right side of preview monitor in the window. *Add* button adds a new event. *Chg* lets you update the event on the list. *Del* deletes the event on the list.



Graphics 30

There are four columns on the list at right side of preview monitor as shown on **Graphics 30**. *Start* is time information at the beginning of event on the list, represents when the CG is going to be displayed in timeline of the video file. *Length* represents the event duration.

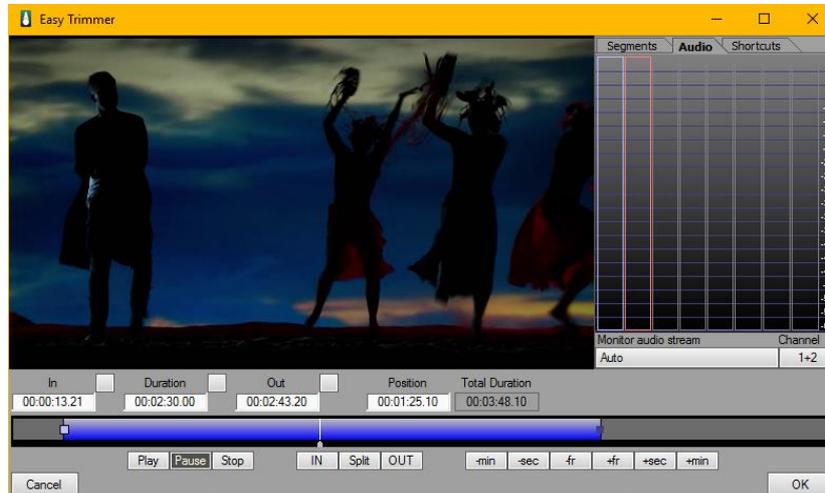
To set start time and duration, there has options which are *In point (From start)*, *In point (From end)*, *Out point*, *Duration*. These timecodes can be edited when an event selected on the list. *In point* and *Out point* can also be applied on timeline bar.

	Refer to GPI Out Event for detailed information about GPI.
---	--

	Refer to DTMF Tone Event for detailed information about DTMF Cue Tone.
---	--

Trim In-Out a Video File

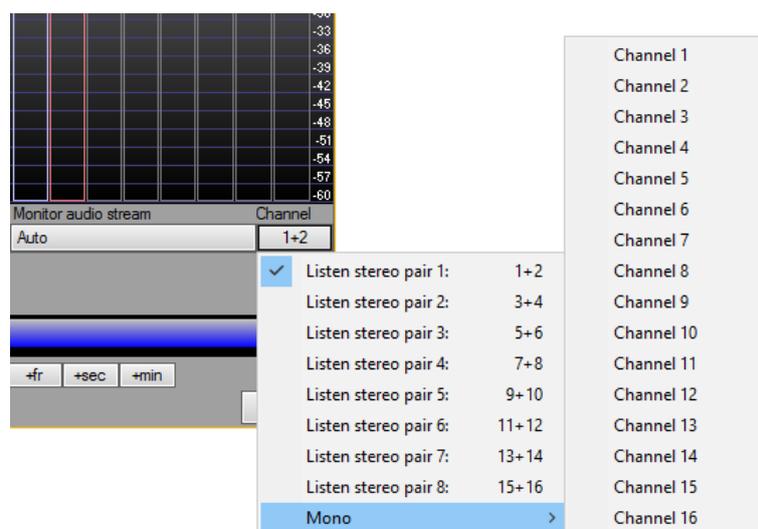
Trim In/Out button on right-click menu of any video file on playlist, is pressed. Popup window that shows up, is as shown on **Graphics 31**. Trim In and Out points can be selected by setting desired timecode in In and Out timecode field or marking on timecode bar.



Graphics 31

Split is to create segments of video file. After splitting video file, segments of video file will appear as a list in Segments bar. Each segment's trim in and trim out points can also be updated. You can also check start and end timecode points of each segments by hold Ctr and pressing Left or Right key on keyboard. Video clip could be preview frame by frame with Left or Right key on keyboard.

If video clip contains multi-channel audio track or multiple audio tracks. Each audio stereo tracks or each audio mono channels can be controlled by click *Monitor audio stream* as shown on **Graphics 32**.

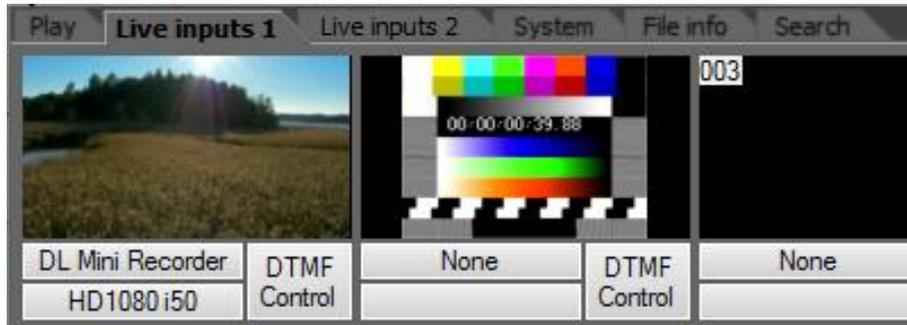


Graphics 32

Live Inputs

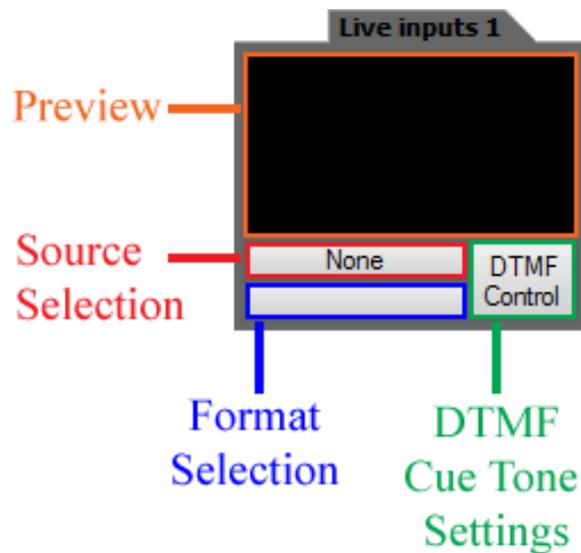
Easy OnAir have SDI, IP, NDI inputs for Live events. Easy OnAir provides automatic Up/Down conversion, aspect ratio adjustment and framerate adaption for live inputs. Easy OnAir support live inputs up to 16.

To select a live input, click *Live inputs 1* or *Live inputs 2* tab on Info Panel.



Graphics 33

Live input window is shown as **Graphics 34**. To select a live input, click source selection button and live inputs will show up as a list. Format is automatically set if live input type is NDI or IP on *Format Selection* area. When live input type is SDI, Format will show up as a list to select one of them.



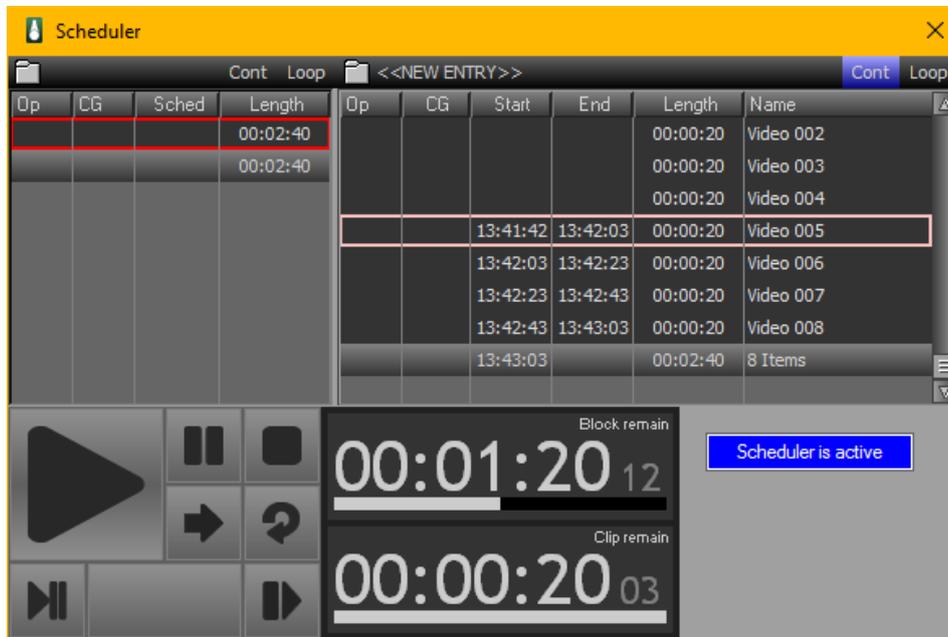
Graphics 34

	Refer to DTMF Tone Event for detailed information about DTMF Cue Tone Settings.
---	---

	If ip live input will use up, please install Easy Stream Input and DTekLive.
---	--

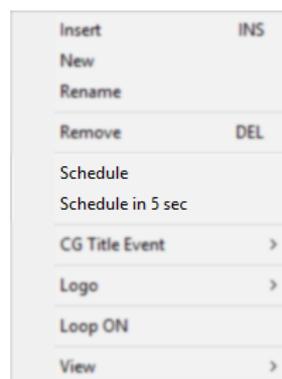
Scheduled Playlist

Scheduled Playlist is the second control unit in the same interface. Although it has the same functionality with main control unit, it has some additional features to play a playlist in a defined time. Its interface is as shown on *Graphics 35*.



Graphics 35

Schedule, on top menu bar, is chosen to open scheduled playlist window. Two additional features, are on right-click menu of each playlist on playlist field, are as shown on *Graphics 36*.



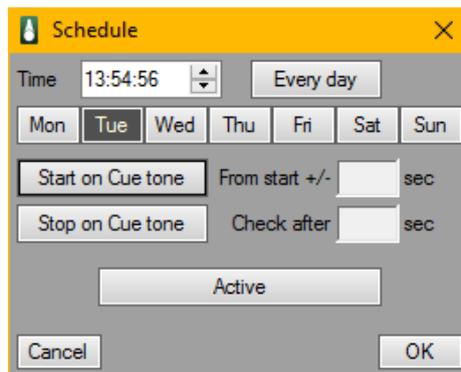
Graphics 36

- *Schedule in 5 Sec*: The playlist, that this option is activated from its right-click menu, starts to play in 5 seconds; and the video file, which had been playing on main playlist, pauses. The main playlist starts to play from the paused time of the video file, after the scheduled playlist is over, if it hasn't been interfered.

- *Schedule*: Date and time settings window, is as shown on **Graphics 37**, is opened for the playlist that this option is chosen on its right-click menu. The playlist starts to play on date and time that is set from here, if the *Active* option is chosen.



Continuity and loop settings of the scheduled playlist defines the behavior of the scheduled playlist.



Graphics 37

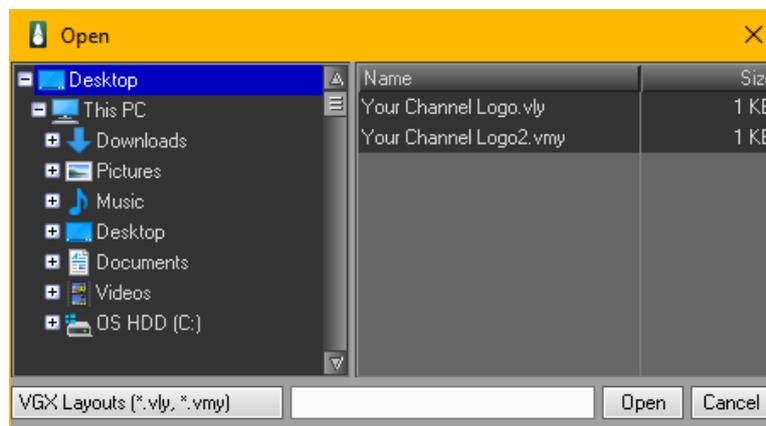
Using of Character Generator

Cg graphics can be created via Easy Cg and can be used in different ways on Easy OnAir.

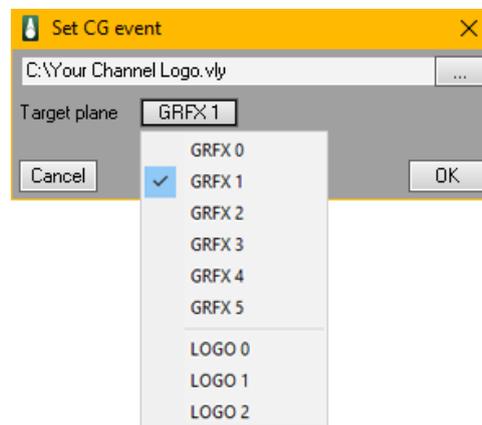
Adding CG Graphics into Playlist as a File

Easy CG layout, which has *.vly or *.vmy file extensions, may be added to playlist by choosing *CG Show* in submenu of *Insert Event* on right-click menu of content field.

After choosing the layout on the window that is shown on **Graphics 38**; *Target Plane* is set to *GRFX 1* by default, as shown on **Graphics 39**. One of nine graphics channels of Easy CG may be set here. The event has been played like a video file when its turn comes in playlist flow.

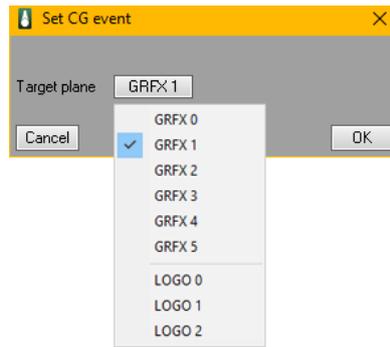


Graphics 38



Graphics 39

Clear command for CG may be added, via the window that is shown on **Graphics 40**, by choosing *CG Clear* on submenu of *Insert Event* and set the graphics channel that is wanted to be clear. It performs the command when its turn comes in playlist flow.



Graphics 40

Cg items in playlist looks like as shown on *Graphics 41*.

Op	CG	TTS	Start	End	Length	Name	TrimIn	TrimOut	Video info	Audio info
		00:00:00	15:42:43	15:43:03	00:00:20	Video 001			720x576@25	2x48K
		00:00:20	15:43:03	15:43:23	00:00:20	Video 002			720x576@25	2x48K
		00:00:40	15:43:23	15:43:23		CG [GRFX 1]: Your Channel Logo				
		00:00:40	15:43:23	15:43:43	00:00:20	Video 003			720x576@25	2x48K
		00:01:00	15:43:43	15:44:03	00:00:20	Video 004			720x576@25	2x48K
		00:01:20	15:44:03	15:44:24	00:00:20	Video 005			720x576@25	2x48K
		00:01:40	15:44:24	15:44:24		CG [GRFX 1]: Clear				
		00:01:40	15:44:24	15:44:44	00:00:20	Video 006			720x576@25	2x48K
		00:02:00	15:44:44	15:45:04	00:00:20	Video 007			720x576@25	2x48K
		00:02:20	15:45:04	15:45:24	00:00:20	Video 008			720x576@25	2x48K

Graphics 41

	Refer to Easy CG User Manual for detailed information of graphics channels of Easy CG.
---	--

Adding CG Graphics into a Video File

The process of adding one or more Easy CG layouts into a video file in one or more time intervals, may be done in the window that is shown on **Graphics 42**, by choosing *Inside events* in right-click menu of the video file in playlist.



Graphics 42

To add a new CG layout, click Add and choose CG on the list which show up. Choosing layout window will pop up as shown on **Graphics 38**. After selection CG layout and one of nine graphics channels of Easy CG as shown on **Graphics 39**, CG item will show up in the list of Inside Event window as shown on **Graphics 41**.

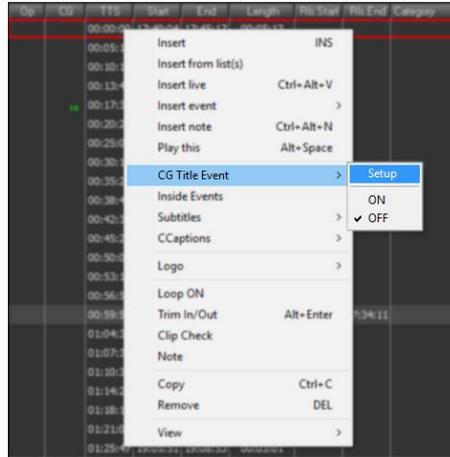


If the settings are configured for the video file, that is on air; the settings will be active next time when the video file is played.

CG Title Event

Cg title event can be applied on a playlist or a playlist item on a playlist.

To prepare a CG Title Event on a playlist item, select a playlist item on a playlist and choose *Setup* on submenu of CG Title Event on right-click menu as shown on **Graphics 43**.



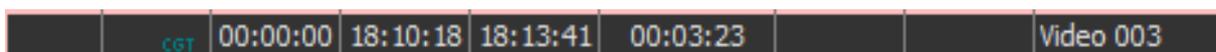
Graphics 43

CG Title Event window will pop up as shown on **Graphics 44**. Get a CG layout by click Browse and choose target plane. *Start after* is start time to display CG Layout and *Duration* is the length to show CG layout on playlist item. After setting *Start after* and *Duration* times, click *OK*.



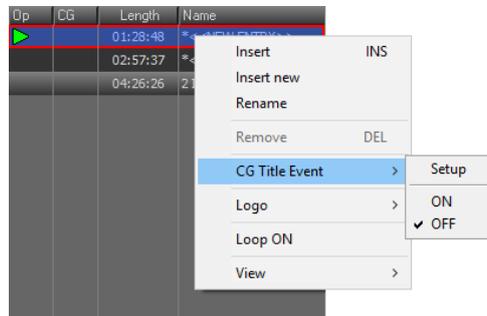
Graphics 44

To activate *CG Title Event* on selected playlist item, choose *ON* on submenu of *CG Title Event* on right-click menu as shown on **Graphics 43**. After activating *CG Title Event* on selected playlist item, *CGT* icon will appear on *CG* column of Content Panel as shown on **Graphics 45**. *CG Title Event* is unique for each playlist item. Same steps need to apply for each playlist item to prepare and activate *CG Title Event*.



Graphics 45

To prepare a *CG Title Event* on a playlist, select a playlist on Playlist Panel and choose *Setup* on submenu of *CG Title Event* on right-click menu as shown on **Graphics 46**. To prepare and activate a *CG Title Event*, follow same steps for a playlist item except *Filename parser file*. To select a filename parser file, click *Browse* which in related area.

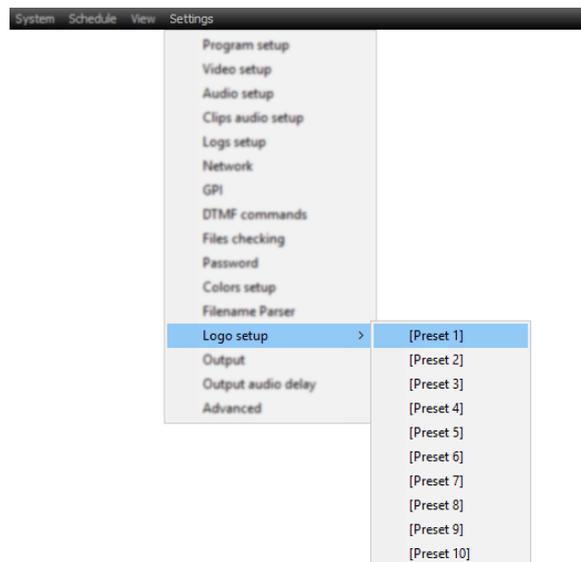


Graphics 46

Refer to *Filename Parser* in *Settings* Chapter for detailed information about preparing a filename parser file.

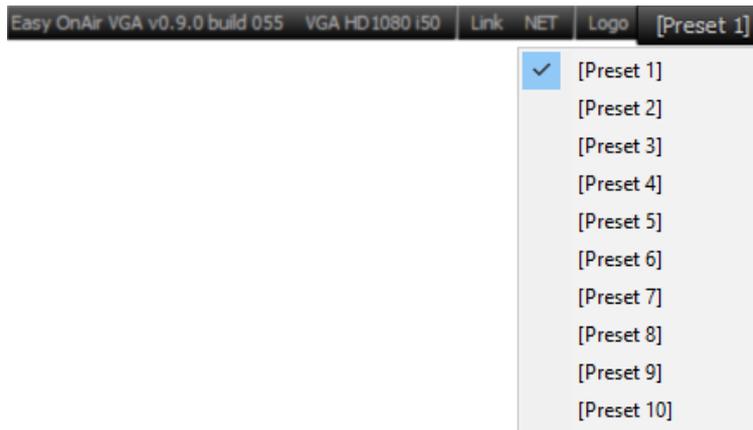
Using CG Presets

CG Presets is using especially for logo layouts. To assign logo layout to CG Presets, open preset logo setup window from one of *Preset* lists in the submenu of *Logo Setup* on top menu bar as shown on **Graphics 47**.



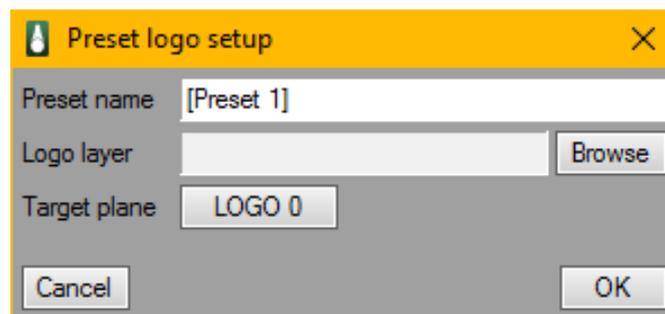
Graphics 47

Preset logo setup window can also be opened by click *Preset* on *Bottom Panel* as shown on **Graphics 48**.



Graphics 48

Preset logo setup window is shown on **Graphics 49**. To complete assigning logo layout to CG Preset, insert logo layout file by click *Browse*, choose *Target plane* and click *OK*. CG Preset name also can be specified by filling this area. If CG Preset name is changed, its name will show up in CG Preset list.

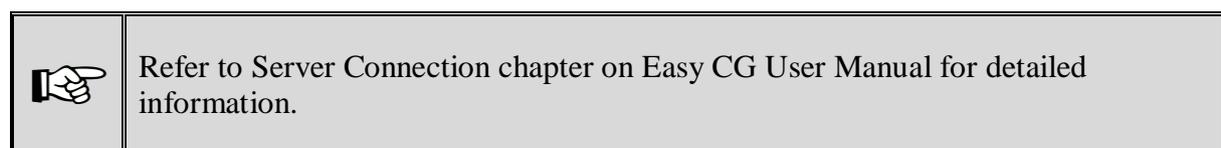


Graphics 49

Control via Easy CG

Easy CG works integrated with the Easy OnAir. Easy CG may send CG layouts directly to Easy OnAir, if they are on the same computer.

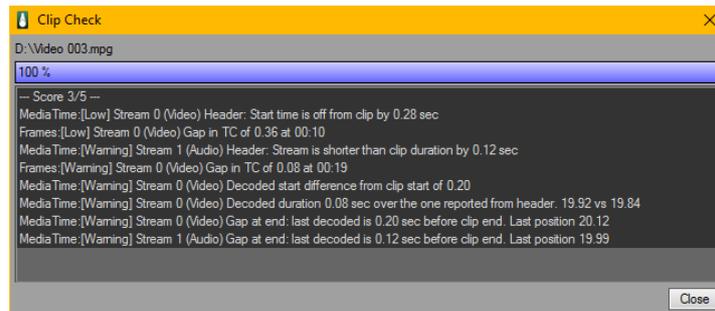
If both of them are running on the same computer, Easy CG detects Easy OnAir as a server. It is controlled via Easy CG interface, after selection of server from Easy CG is done.



Clip Check

Clip Check is a feature to control video clips for playing properly on Easy OnAir. *Clip Check* is checking them by decoding and gives score over 5 with information. Advised score is at least 3 to play them properly on Easy OnAir.

To use *Clip Check*, select a video clip in playlist and right-click menu of content field and choose *Clip Check* from the list. *Clip Check* will start to decode selected video item and will give the results and its score as shown **Graphics 50**.



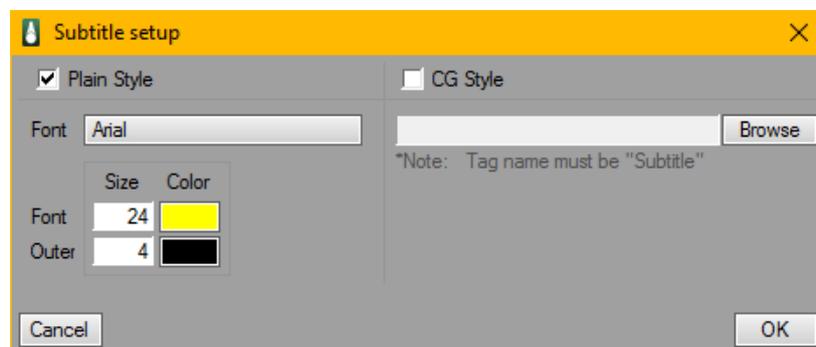
Graphics 50

Subtitles

Subtitles can be burned into video clip by right-click menu of content field and choose *Assign Subtitle* in submenu of *Subtitles* from the list. Easy OnAir supports SubRip “*.srt” file format.

Subtitle formatting features can be changed such as color, font type, font size, style. To apply style on subtitle, right-click menu of content field and choose *Subtitle Setup* in submenu of *Subtitles* from the list. *Subtitle Setup* window is shown on **Graphics 51**.

CG style can also be applied, insert cg layout and mark CG Style option. If CG layout has text object to style subtitle text, text object must have “Subtitle” tag. The other CG objects in layout such as box or image for background, no need to add “Subtitle” tag.



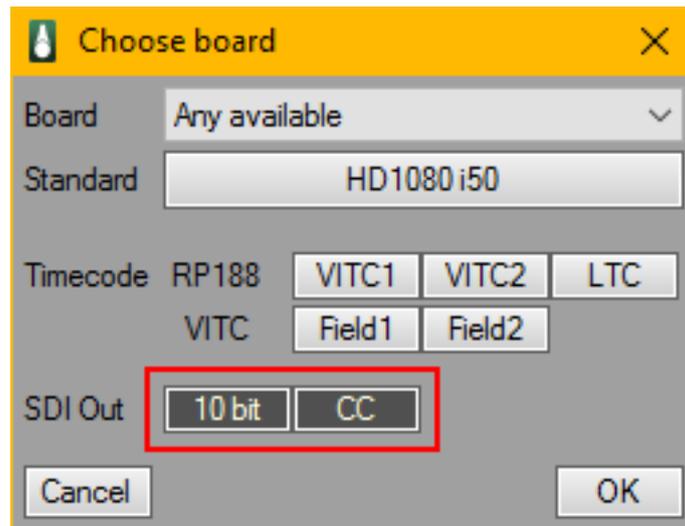
Graphics 51

Closed Captions

Easy OnAir supports closed captioning based on EIA-708 standard.

Closed Captions can be assigned by right-click menu of content field and choose *Assign CCaptions* in submenu of *Captions* from the list.

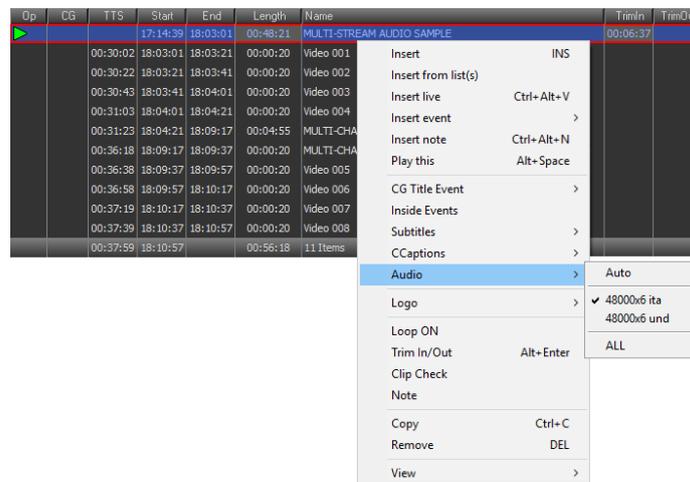
In order to send closed caption signals through SDI, click *Output* from *Settings* on top menu bar and activate *10 bit* and *CC* options as shown and marked with red color on **Graph 52**.



Graphics 52

Audio Selection

If video clip contains multiple audio tracks, Audio options will be visible to select in list via right-click on content field as shown on **Graphics 53**.



Graphics 53

A channel is one mono audio feed. A track is an audio container which contains any number of audio channels.

For example, stereo track contains two audio channels which are left mono audio feed and right mono audio feed.

Multiple audio tracks are multiple audio tracks with different channel counts configurations. For example, multiple audio languages with transport streams is common sample for it.

Multi-channel audio track is one audio track contains multiple audio channels. For example, 5.1 audio track is a sample for it.

5.1 audio track contains six audio channels which are front left mono feed (FL), front center (FC), front right (FR), low frequency (LFE), back left (BL), back right (BR) mono audio feed.

Adding Note on Playlist Item

Note, on right-click menu of content field, is chosen to add notes into playlist. The popup window, that shows up when *Note* is chosen, is as shown on **Graphics 54**. After typing a text into the area, *OK* is chosen. Note is shown on *Note* column at playlist.



Graphics 54

Interface

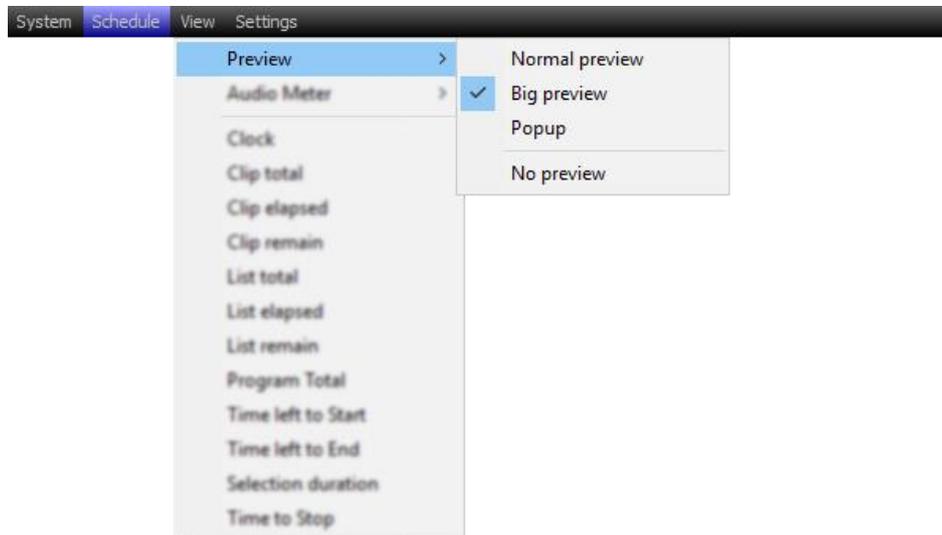
Interface Configuration

Interface of Easy OnAir can be customized such as *Preview monitor*, *Audio level monitor*, *Time monitor*.

Preview Monitor

Appearance of preview monitor may be changed from submenu of Preview in top menu bar item View. The options on *Preview* as shown on **Graphics 55**, are;

- Normal preview
- Big preview
- Popup
- No preview



Graphics 55

Normal preview is default. *Big preview* extends preview monitor. *Popup* displays preview monitor on an external window. *No preview* inactivates preview monitor.

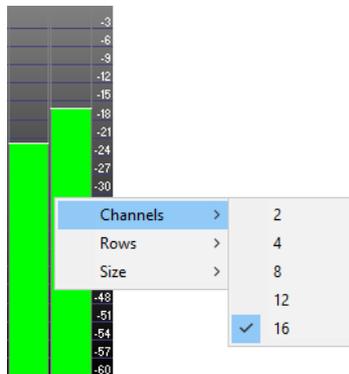
Audio Level Monitor

Audio Bar is on Audio Panel as shown on **Graphics 56**, represents audio level of the playlist item which is on air simultaneously. Excessive audio peaks like distortions are shown with different color.



Graphics 56

You can increase audio channel count on Audio Bar by right-click on Audio Bar and select audio channel count from Channels in the list shows up as shown on **Graphics 57**.



Graphics 57

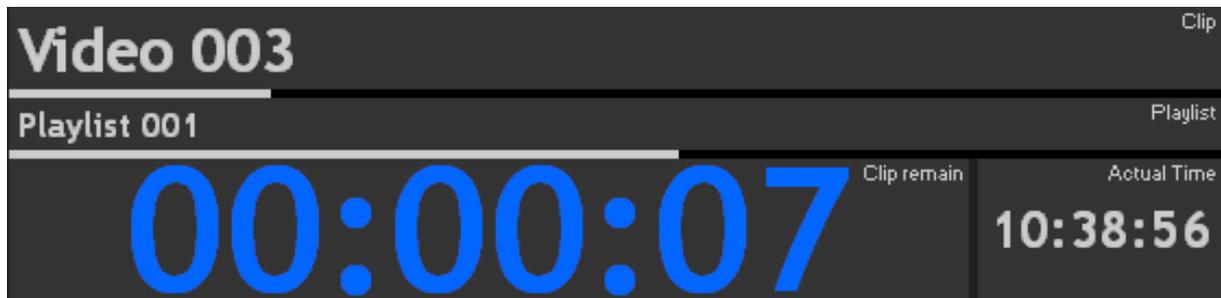
Audio Bar lines will change after selection audio channel count as shown on **Graphics 58**.



Graphics 58

Time Monitor

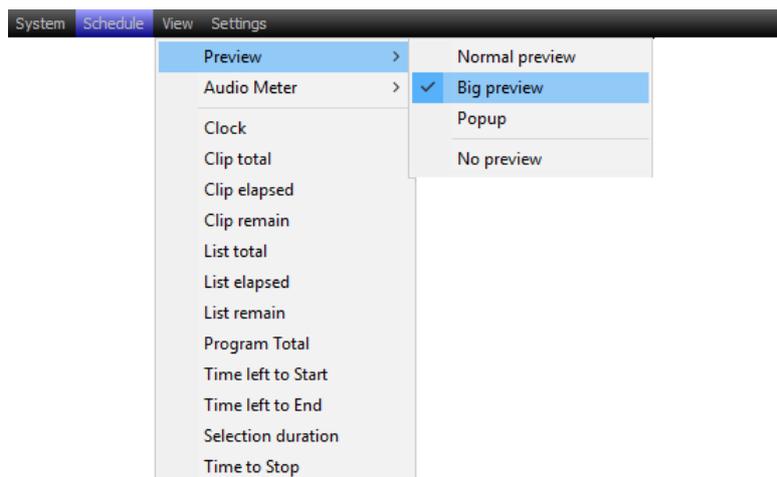
Clip Remain is the main timecode which has blue font at *Timers Panel* as shown on **Graphics 59**, represents remaining time of video file. You can change *Clip remain* to other timers such as *List Remain*, *Block Remain*, *Clip Elapsed*, *Block Elapsed* ... To do that, right-click on main timecode and choose timer from the list shows up.



Graphics 59

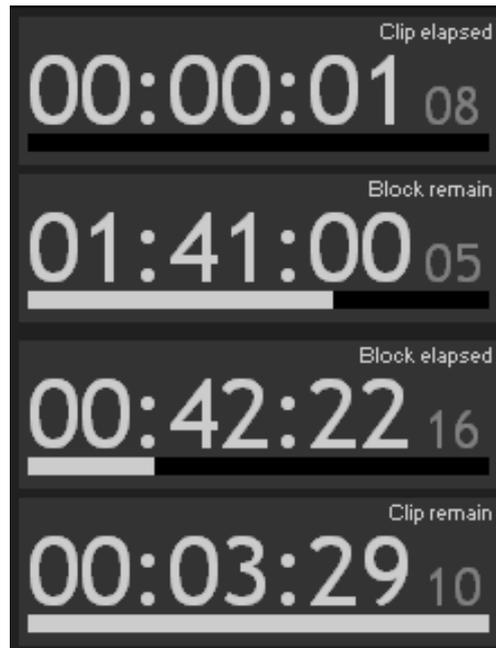
Clip Elapsed and *Block Remain* are located as default on *Timers Panel*.

If you choose *Big Preview* from *View > Preview* as shown on **Graphics 60**, there will show up 2 extra timers on *Timers Panel* as shown on **Graphics 61**.



Graphics 60

You can also change each timer by right-click on timecode and choose timer from list shows up.



Graphics 61

Actual time toolbar shows system clock. Clip toolbar shows the name of playlist item which is on air. Playlist toolbar shows the name of playlist which is on air.

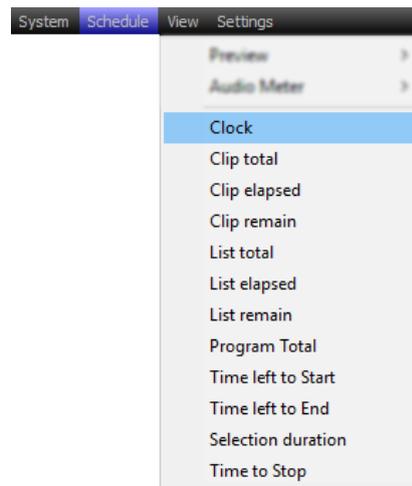


The preview monitor chooses *Normal Preview as default size*. If it is changed, the location of the timers may be changed.

Time Monitoring on Pop-up Window

The options, that can be monitored on pop-up window are in the submenu of *View* on top menu bar as shown on *Graphics 62*;

- Clock
- Clip Total
- Clip Elapsed
- Clip Remain
- List Total
- List Elapsed
- List Remain
- Program Total
- Time left to Start
- Time left to End
- Selection Duration
- Time to Stop

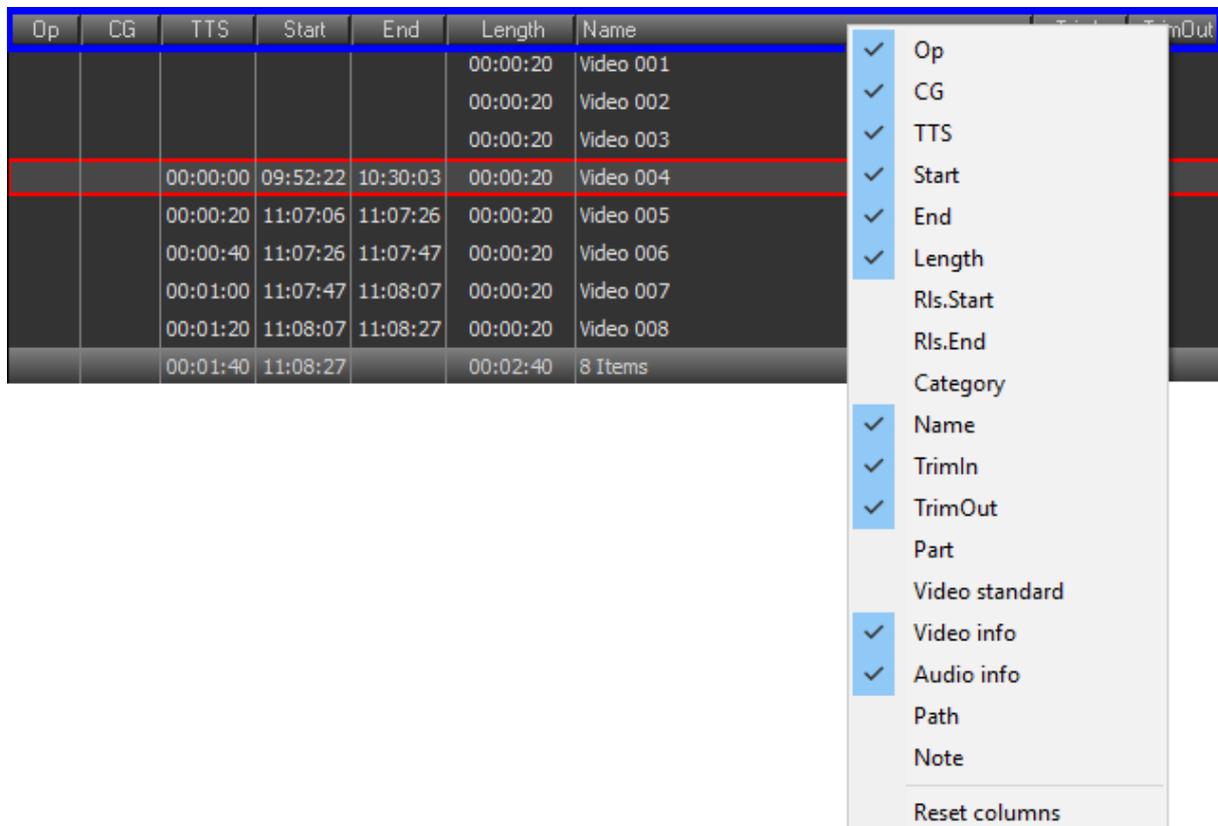


Graphics 62

Clock is activated to display system clock. *Clip Total* is activated to display item duration of selected playlist. *Clip Elapsed* is activated to display the elapsed time of selected playlist item. *Clip Remain* is activated to display the remaining time of selected playlist item. *List Total* is activated to display the duration of playlist which is on air. *List Elapsed* is activated to display the elapsed time of playlist which is on air. *List Remain* is activated to display the remaining time of playlist which is on air. *Program Total* is activated to display the duration of program containing all playlists. *Time left to Start* is activated to display the remaining time of selected playlist item below of the playlist item which is on air. *Time left to End* is activated to display the remaining time of selected playlist which is on air. *Selection Duration* is activated to display the duration of selected playlist items. *Time to Stop* is activated to display the remaining time of selected *STOP* event in a playlist in case of Easy OnAir is on air.

Playlist Columns

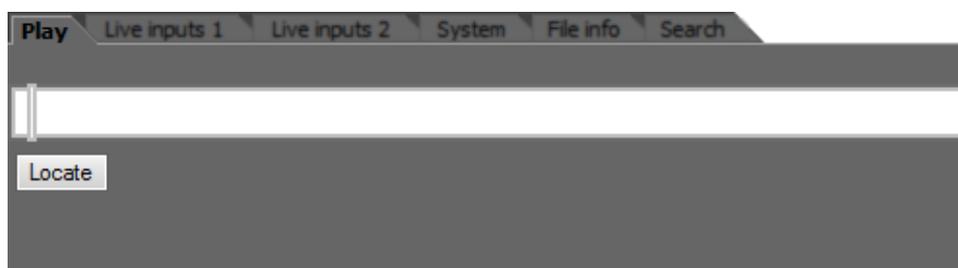
Playlist Columns can be customizable by right-click on playlist header which is a blue marked area as shown on *Graphics 63*.



Graphics 63

Play Tab Bar

Timeline bar indicates time progress of playlist item while playing. *Locate* button helps to find playlist item which is playing in playlists.

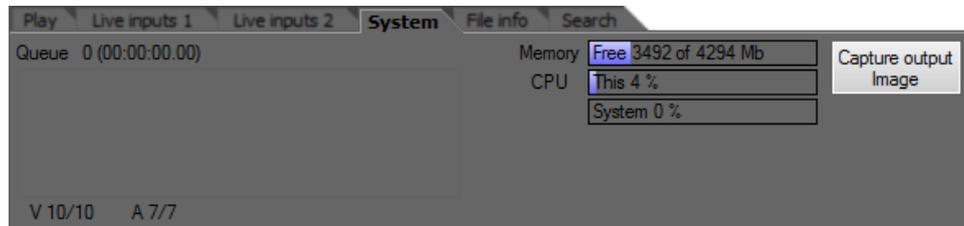


Graphics 64

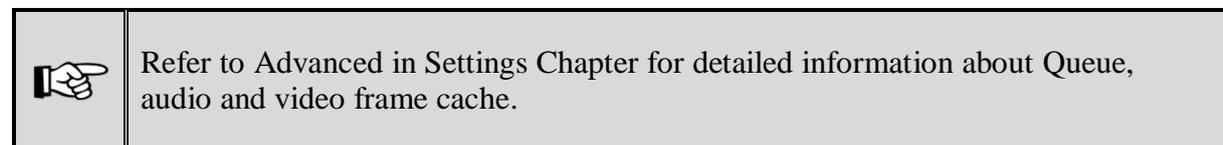
System Tab Bar

System Tab Bar shows Queue count, Queue duration, Video frame cache, audio frame cache and system resources usage information such as memory, cpu as shown on **Graphics 65**.

To get and save image of Easy OnAir output, click *Capture output Image*.

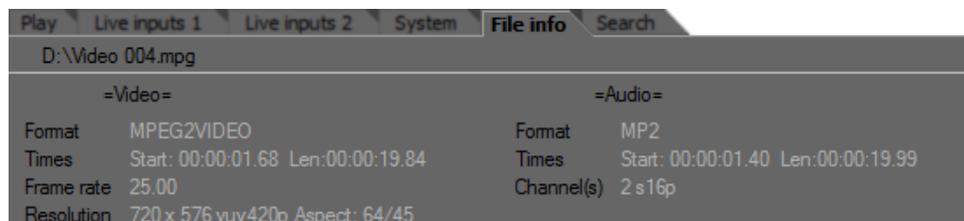


Graphics 65



File Info Tab Bar

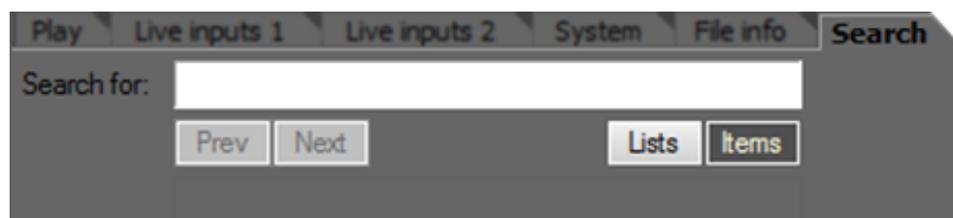
File Info Tab Bar shows technical information about video and audio when a video clip is selected in playlist.



Graphics 66

Search Tab Bar

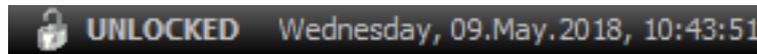
Search Tab Bar helps to find playlists or playlist item in playlist. Type *Search for* text box and click *Prev* or *Next* button to find playlist or playlist item.



Graphics 67

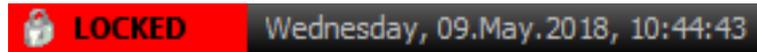
Lock/Unlock Interface

Lock/Unlock button is located at Bottom Panel as shown on **Graphics 68**. Interface is unlocked as default.



Graphics 68

To lock interface, click UNLOCKED and it will show up LOCKED as shown on **Graphics 69**.



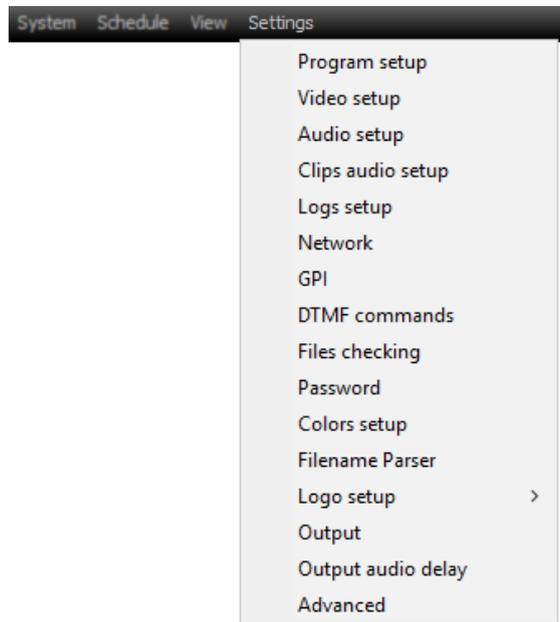
Graphics 69

When interface is locked, Easy OnAir Controls will be locked to control and playlists won't be changed or deleted.

A password can assign to use lock and/or unlock interface. To assign a password for lock and/or unlock, click *Password* on top menu bar and set a password.

Settings

Settings submenu can open by click *Settings* on top menu bar. The submenu of *Settings* list is shown on **Graphics 70**.



Graphics 70

Program Setup

Program setup can open on submenu of *Settings* on top menu bar. Program setup window is shown as **Graphics 71**.



Graphics 71

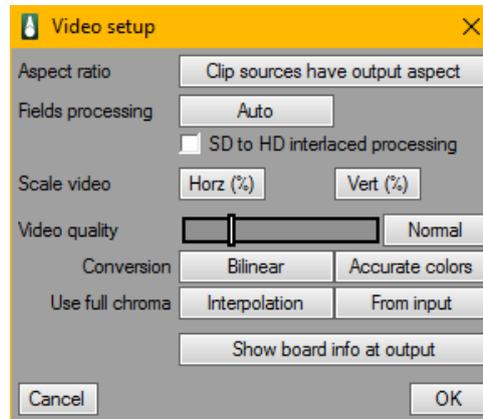
When *Channel name* is typed, it will show up on Easy OnAir header window as shown on **Graphics 72**. *Warnings* is used to give information in case of Easy OnAir won't open properly at start up.



Graphics 72

Video Setup

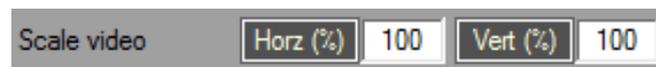
Video setup can open on submenu of *Settings* on top menu bar. *Video setup* window is shown as *Graphics 73*.



Graphics 73

You can find following features on video setup:

- Aspect ratio:
After enable this features, clips sources will have output aspect. Aspect ratio feature is useful in case of up/down conversions like SD to HD. For example, output is HD and some of clips in playlist are SD, clip's aspect ratio will be 16:9 when it is 4:3.
- Fields processing:
Fields processing features eliminate field issues while using the files which is DV format such as DV, DVCAM, DVCPPro, DVCPPro50.
- SD to HD interlaced processing:
It is a feature to fix deinterlace issues while up conversion process occurred.
- Scale video:
To scale Easy OnAir output, enable Horz and/or Vert and their text area will appear as shown on *Graphics 74*.



Graphics 74

- Video quality:
To change video quality of Easy OnAir output, select one of video quality options which are Low, Normal, Better and Good as shown on **Graphics 75**.



Graphics 75

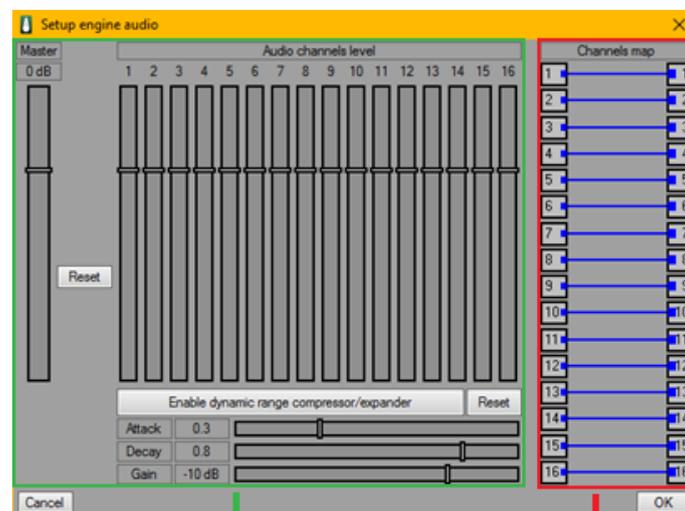
- Show board info at output
It is a feature to show video edit card name and its output format on output.

Audio Setup

To open *Audio Setup* window, click *Audio Setup* on submenu of *Settings* on top menu bar.

Easy OnAir has Audio Channel mapping and Dynamic audio limiter compressor features.

Clips in playlist may have different audio levels, and this may result to loudness or silence on audio output. Dynamic audio limiter compressor prevents this kind of issues at audio output.



Dynamic Audio
Limiter Compressor

Audio Channel
Mapping

Graphics 76

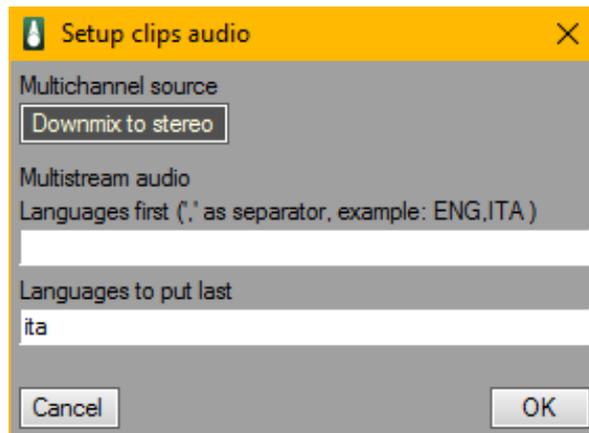
Easy OnAir supports 16 audio channels, and users may need to route audio channels inside Easy OnAir, Audio Channel Mapping helps to route them inside it.

Clips Audio Setup

To open *Clips Audio Setup* window, click *Clips Audio Setup* on submenu of *Settings* on top menu bar.

When a clip is used which has multiple audio channels, *Downmix to stereo* feature create a stereo mix by combining all audio channels into a single stereo output.

To order multiple audio/language tracks, use language title metadata which is 3-letter code ISO 639-2. While ordering audio languages with their language titles, insert comma as separator.



Graphics 77

	If clip has multiple audio tracks and to create stereo for each tracks, enable Downmix to stereo and choose all audio tracks of the clip.
---	---

	Refer to Audio Selection in Using Easy OnAir Chapter for detailed information about choosing all audio tracks of the clip.
---	--

Logs Setup

To open *Logs Setup* window, click *Logs Setup* on submenu of *Settings* on top menu bar.

Easy OnAir has 3 different logs which are system logs, user logs and default logs.

Default logs extension is *.log. It includes playlist items played time, their file name and on air duration within single line.

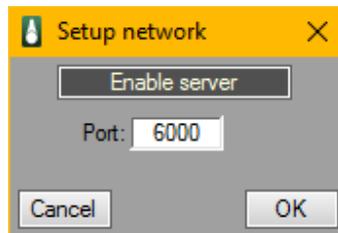
User logs extension with part of its short name is *.usr.log. It includes user interface actions such as jump, play, stop, changing playlist items position in a playlist.

System logs extension with part of its short name is *.sys.log. It includes logs such as open and close time of Easy OnAir, changes about output configuration.

Log files location is the *Logs* folder in Easy OnAir default installation folder.

Network

To open *Network* window, click *Network* on submenu of *Settings* on top menu bar. Easy OnAir can be controlled with Easy Net Controller by tcp/ip communication. The communication protocol is Media Object Server Communications protocol (MOS). To use Easy OnAir as a server on a client, type a number and activate *Enable server* as shown on **Graphics 78**.

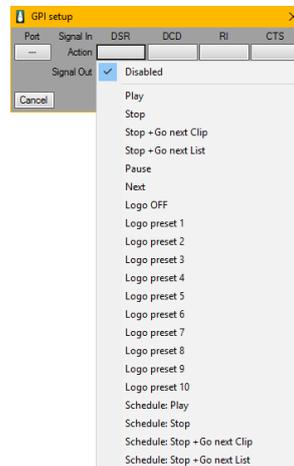


Graphics 78

To increase playout operation safety, use mirror playout automation. Mirror mode is fully redundant which using master and slaves of Easy OnAir. Easy Net Controller is a client application to create a mirror playout automation or M+N backup facility.

GPI

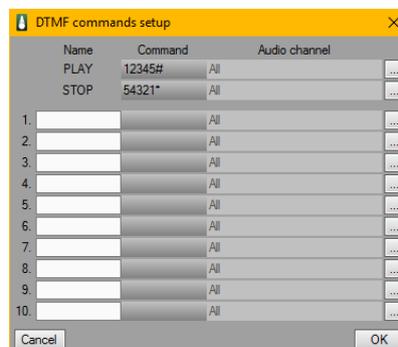
To open GPI setup window, click *GPI* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 79**. Easy OnAir can also be control over General Purpose Interface (GPI). Choose a com port and customize actions based on GPI signals which are *DSR*, *DCD*, *RI*, *CTS*.



Graphics 79

DTMF Commands

To open DTMF Commands window, click *DTMF commands* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 80**.



Graphics 80

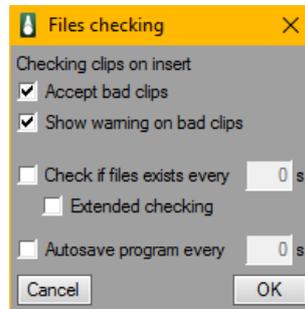
You can customize DTMF commands by giving a name, choosing audio channel and typing DTMF tone key.



Refer to DTMF Tone Event and DTMF Command Event from Playlist Events in Using Easy OnAir Chapter for detailed information about DTMF commands and DTMF tones.

Files Checking

To open Files Checking window, click *Files Checking* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 81**.



Graphics 81

While inserting clips into a playlist, Easy OnAir checks and shows warning as pop up in case of clips not play properly.

To check clips exists or not in playlists, enable *Check if files exists every* option and type interval time in seconds to check. If one of clips in playlist does not exist, the clip line color will change. Extend checking is a feature to cache the clips in a playlist when Network Attached Storage (NAS) is used.

To save playlists in interval times, select *Autosave program every* option and type duration in seconds for interval times.

Password

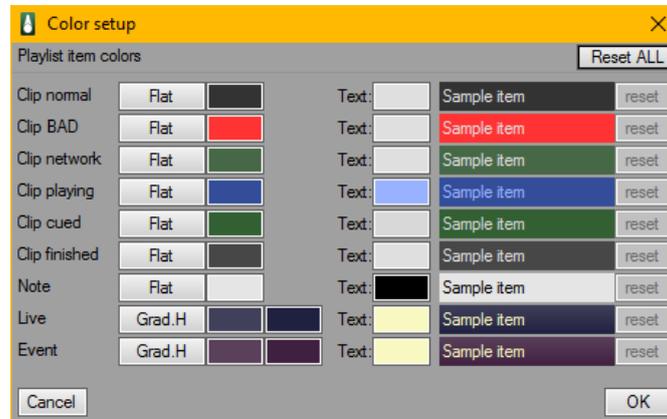
To open Password window, click *Password* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 82**.



Graphics 82

Colors Setup

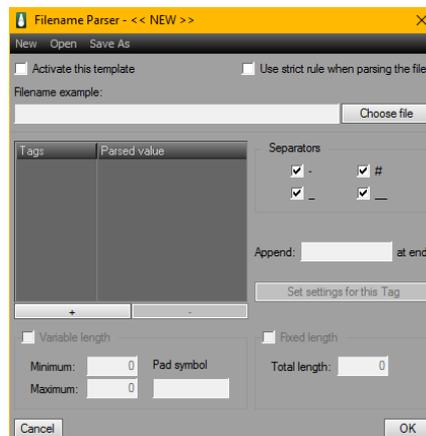
To customize playlist item line and text colors with different indicators, click *Colors Setup* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 83**.



Graphics 83

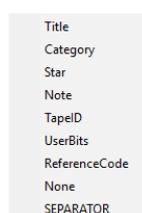
Filename Parser

To open Filename Parser window, click *Filename Parser* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 84**.



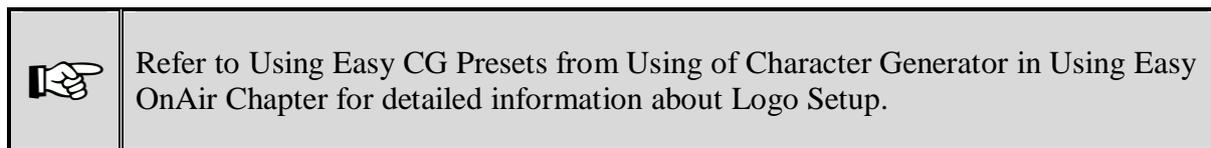
Graphics 84

To prepare filename parser, choose CG layers by click *Choose file*, then click **+** plus sign and its options will show up as shown on **Graphics 85**.



Graphics 85

Logo Setup



Output

Please read Quick Configuration Chapter for different output configuration.

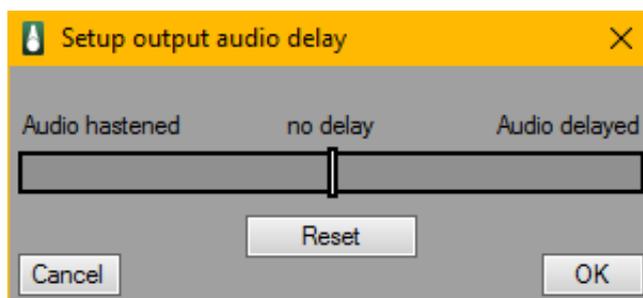
Easy OnAir supports sending timecode data through SDI as RP188, LTC and VITC (Field1 and/or Field2).

To get detailed information about closed caption data through SDI, read Closed Captions From Using Easy OnAir Chapter.

Output Audio Delay

To open Output Audio Delay window, click *Output Audio Delay* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 86**.

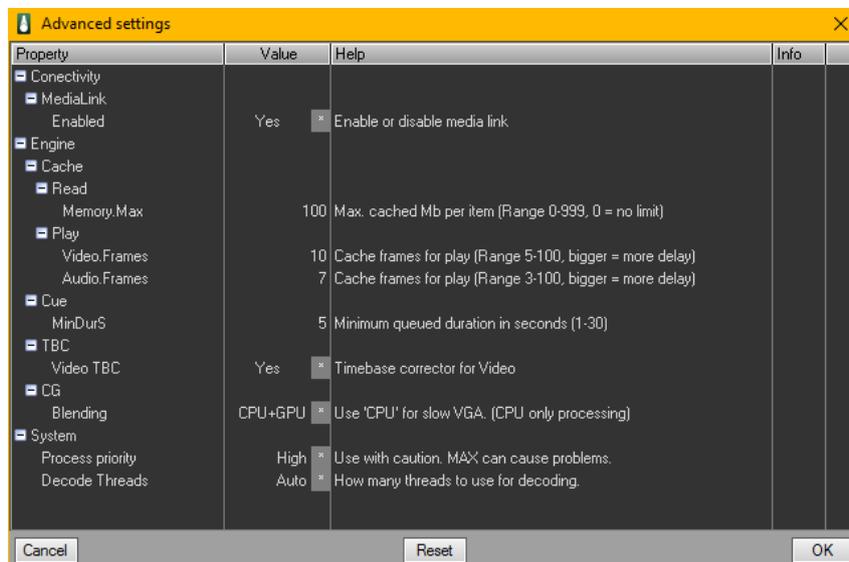
Output Audio Delay may be used when there has tv channel infrastructure system. Tv channel infrastructure system may use broadcast devices such as audio mixer, video mixer, video infrastructure, audio infrastructure. In this case, audio and video signals will have different outputs and there may have a fixed audio video sync problem. To fix audio video sync problem, use audio delay or audio hasten.



Graphics 86

Advanced

To open Advanced window, click *Advanced* on submenu of *Settings* on top menu bar and it will show up as shown on **Graphics 87**.



Graphics 87

Advanced Settings options are shown below.

- **MediaLink:**
MediaLink is virtual output of Easy OnAir. To use virtual output of Easy OnAir, please install Easy DtekLive module.
- **Cache -> Read:**
It is cache size per item which cued in playlist. Its size unit is Megabit.
- **Cache ->Play:**
It is cache frame count which item is on air to play. As video and audio cache frame count increases, video edit card delay will increase. For example, use lower values for news channels, use higher values for movie channels.
- **Cue:**
It is total cued duration for item or items in playlist. Its time unit is second.

Sample configuration for cue, read cache, play cache and its results in playlist is shown on Graphics 88 and Graphics 89 respectively.

Engine		
Cache		
Read		
Memory.Max	900	Max. cached Mb per item (Range 0-999, 0 = no limit)
Play		
Video.Frames	5	Cache frames for play (Range 5-100, bigger = more delay)
Audio.Frames	3	Cache frames for play (Range 3-100, bigger = more delay)
Cue		
MinDurS	30	Minimum queued duration in seconds (1-30)

Graphics 88

Op	TTS	Start	End	Length	Name	Path
		14:12:18	14:12:23	00:00:05	Video 001	\\devtekнас\Media\sample\Video 001.mpg
▶		14:12:23	14:12:43	00:00:05	Video 002	\\devtekнас\Media\sample\Video 002.mpg
	00:00:03	14:12:43	14:12:48	00:00:05	Video 003	\\devtekнас\Media\sample\Video 003.mpg
	00:00:08	14:12:48	14:12:53	00:00:05	Video 004	\\devtekнас\Media\sample\Video 004.mpg
	00:00:13	14:12:53	14:12:58	00:00:05	Video 005	\\devtekнас\Media\sample\Video 005.mpg
	00:00:18	14:12:58	14:13:03	00:00:05	Video 006	\\devtekнас\Media\sample\Video 006.mpg
	00:00:23	14:13:03	14:13:08	00:00:05	Video 007	\\devtekнас\Media\sample\Video 007.mpg
	00:00:28	14:13:08	14:13:13	00:00:05	Video 008	\\devtekнас\Media\sample\Video 008.mpg
	00:00:33	14:13:13		00:00:40	8 Items	

Graphics 89

|| Icon represents cued items in playlist. Clip items location in playlist is NAS in this sample configuration. Even NAS network connection is lost, Easy OnAir will keep to play cued items in the playlist without any problem.

- **TBC:**
It is time base corrector and when it is active, time to start timecodes (TTS) of each items in playlist will be constant.
- **CG Blending:**
Easy OnAir consumes system CPU, to decrease consuming CPU, select CPU + GPU option if system has Graphic card.
- **Process Priority:**
It is operating system process priority. The priority levels range from Normal to Max.
- **Decode Threads:**
It is thread count for decode processing. Its default value is *Auto* and the thread count range is up to 16.

Restrictions and Activation

Restrictions of Demo Version

Even though demo version of Easy OnAir doesn't have any restriction on interface, it adds a watermark to the output as it's seen on preview monitor. Once the activation process is done, the watermark will disappear.

Activation

You need to submit a licence file and send it to us, it is shown on *Graphics 90*, where it can be seen via *Licence* in *Help* on top menu bar.

If you have licence file, to activate Easy OnAir license, insert licence file into Easy OnAir installation folder and click *Licence* in *Help* on top menu bar.

The watermark is disappeared from preview monitor and output, after this process.



Graphics 90

Technical Support

General support is available from Easy Media Suite web site by using the following URL: <http://www.easymediasuite.com/>. A client may click on TechSupport on the web site and open a ticket for a timely response.

Services;

- **Phone Support**

Easy Media Suite provides 7x24 on-line phone support.

- **On-site Support**

Easy Media Suite provides on-site support as needed either during a project launch phase or in the case of the problem cannot be solved over the phone.

- **Remote Access**

Easy Media Suite provides remote support over Virtual Private Network for its customers. Upgradations, system configuration and log management may be handled via VPN.

Contact

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