GreenMediaHD Operations Manual

Version	Date	Author	Change Description
1.1	7/10/12	Luis Pinos P.E.	GreenMediaHD
3.8	24/12/12	Luis Pinos P.E.	GreenMediaHD
8.0	12/11/2016	Luis Pinos P.E.	GreenMediaHD CorpGMHD.7D
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Description and objective:

The following information is a general features description of the Cloud content delivery solution by GreenMediaHD LLC. Our cloud solution is provided as a service with a subscription for basic service.

The user can buy additional cloud space if required in his application.

Enterprise solution has no size limitation, and Energy Audit - Energy Reduction Visualization included.

Operations Manual:

Installation of GreenMediaHD cloud delivery solution has two basic steps.

- 1 Create an account in our web site www.GMHDCorp.com . Generated by our team.
- 2 Edit or modify digital content (WEB Pages, Video Streaming, Images, Videos, and Messages).

Sign in:

Your account you can Sign in to your personal account using your user name and password. Sign in creates a unique account in the server.

www.GMHDCorp.com will take you to our server for system configuration.



Enter the User Name and Password provided by our team to be used in your site.

Note the user and password can be change by security reasons in coordination with GreenMediaHD.

Please email to lepinos@comcast.net or call 1 786.351.5779 USA.



Screen Content:

Gif Files in any Zone

Cloud Content editing option, configures, modifies, and uploads a set of WEB Site access, images, videos, Stream Videos URL, Restaurant menu list, SD memory local videos, weather, site locations, and geo-positioning information for Digital Media to show in the Playout for each product, service or item.

Playlist:

Configures, modifies the sequences and duration time for:
Real Time Energy consumption,
Graphical display (PNG, JPG format)
Commercial Block
Announcement Video
SD Card Videos
TV Channels Configuration
Menu Items
WEB TV Video Streaming
GCOP Chiller Optimization
Announcement Web Page
Real Time Picture Slider

The user can select here from 12 pre-programmed templates to display the cloud content entered in Screen Content.

(*) your system can have all or some features available.

Playout Definitions:

The user can configure Playout programs that will execute by time schedule and calendar. Program the Start Hour, End Hour and Day of the Week of a playout list that contains Advertisement, Blocks, Pictures, Videos, Streaming Videos, TV Programs, Energy Dashboards, Web access and messages. The schedule event also can be executed periodically. In addition, the created events can be defined as geo-location event which execution depends on the location of the display device.

Block of Playout Sequences:

Configures, modifies the sequences and duration time for each screen in commercial blocks to be inserted in the Play list. The user can select here from 10 pre-programmed templates to display the cloud content entered in Screen Content. The Block can also be used for promotional time events. A block can be activated in an specific time and taken out of the playlist for commercial campaigns.

Advertising Companies:

Define the companies that will show their advertisements in the play list. Every company can be assigned to one or more sequences in the play list. This allows you compute "the time on the air" of all the publicity associated with a particular company.

Sounds:

The user can upload his own background music to our server to play as background music whenever he requires adding to the energy display. (GreenMediaHD is not responsible for intellectual property or copy rights of background sounds uploaded by the user). Sound Files must be in mp3 format and can have up to 10 Mb. If a video file is playing, the sound file will be paused and will resume when video file ends. You can also define a list of sounds saved in your SD Card instead of downloading sounds from the web.

Weather temperature setup:

The user can show a temperature panel in the upper right corner of the screen over the current image. Configure the temperature units, language and the city name to show.

Touch Screen Tags:

We have the option to convert any regular TV in a touch screen TV. If the service includes a touch screen display, the user canconfigure the tags that popup in the screen every time the user touches the screen surface. Define the URL links of the informative web pages associated to each tag. Define the image used in each tag for a complete interactive Signaling Digital Display.

Messages:

Enter messages to be display as a ticker tape below the screen.

Each message can be up to 255 characters long. If the first message is selected as Visitor, it will be display every other message. You can change the font and color of the text and background.

Holidays:

Define holidays, to change operation hours. Time schedules can be programmed to change the time the TV will be ON/OFF

Schedules:

Program what time the display will be ON/OFF to reduce screen burnout and saves energy.

Add new Licenses:

This Option is restricted for Corporate Accounts. Commercial users will get the approval code from GreenMediaHD to enter in this section.

You can also see available session information, Edit Terminal Alias or descriptions for Remote TV site locations, and monitor the status of your terminals if they are connected and in normal operation.

Screen Content configuration:

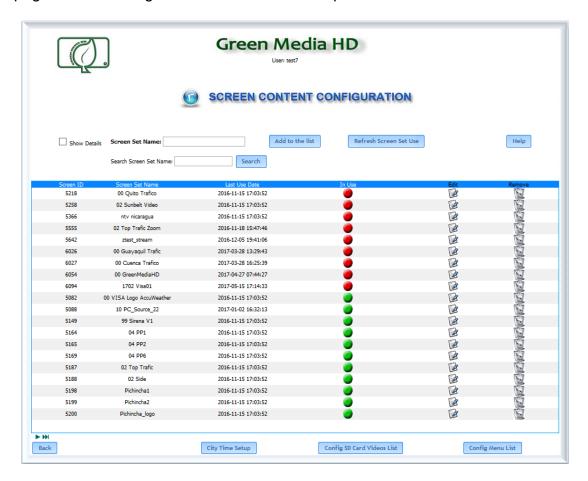
The object oriented data base is formatted in Screens; every screen can have one WEB site, one Image, one video, one URL of an stream video or any combination of them. The content at each screen name is used to assemble to display screens in the rotation definitions.

In demo mode you can upload images up to 3 Meg, (JPG-PNG) format and videos up to 10 Meg (mp4 format recommended).

After registration, you will be able to upload videos up to 1 Gb (mp4 format recommended),

Every screen is assigned a unique ID number in the system. Any screen can be edited or deleted.

The page used to configure the screen content is presented below:



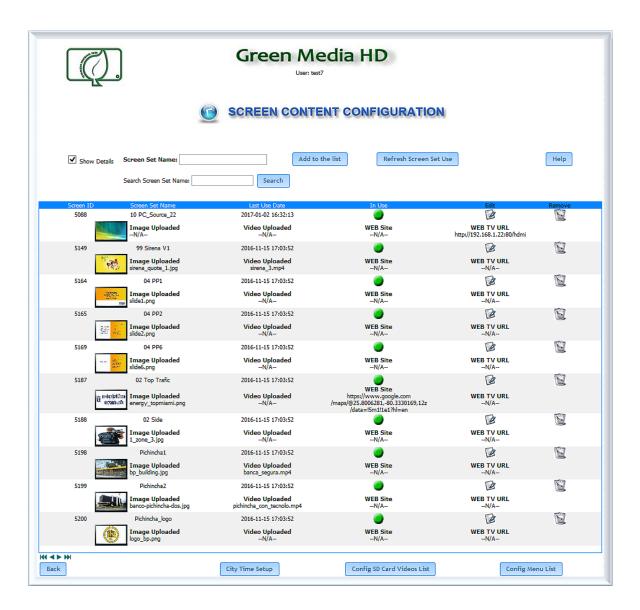
Description of each component of the page:

Screen Set Name: In this option we write a name for this particular screen content. This name will be used later in some configurations, such as content of sequences in the play list, logos, tags images, etc. Once you select a name for the screen content you should click on Add to the list button to save the name on database. The name will appear alphabetically in the table below.

Each line of the table has the following information:

- Screen Set ID, this is an ID for the database. If you click once on the column title, all the items are sorted by the ID in ascending order, if you click again it will be sorted in descending order. A hand cursor indicates that you can click on column title to sort items.
- Screen Set Name, this is the name of the screen content we create to store a
 particular content for the play list. This name allows us to pick up the right
 content we want in the configuration of each sequence in the play list. If you click
 once on the column title, all the items are sorted alphabetically by the Screen
 Set Name in ascending order, if you click again it will be sorted in descending
 order. A hand cursor indicates that you can click on column title to sort items.
- Last Use Date: This indicates the date of creation of the screen set or the last date this screen set was detected used inside any part of the programmed sequences. To refresh the last date that each screen set was used, we must click on the button Refresh Screen Set Use. If you click once on the column title, all the items are sorted by the Last Use Date in ascending order, if you click again it will be sorted in descending order. A hand cursor indicates that you can click on column title to sort items.
- In Use: If the screen set is used in any part of the programmed sequencessuch as: sequence of a play list (whether it be an event or a main play list), in an active block of sequences, in a logo for city time, in an image of a tag, or in an image of a menu list, a green circle will be shown. If the screen set is not used a red circle is shown. When the screen set is first created it is shown red. To refresh the current state of each screen set we must click on the button Refresh Screen Set Use. Using this information and the Last Use Date, we can decide if we delete this screen set because it is no longer necessary, so we free some space in the server. If you click once on the column title, all the items are sorted in a way that all unused items appear first, if you click again it will be sorted in a way that all used items appear first. A hand cursor indicates that you can click on column title to sort items. It is useful to decide what items erase.
- Edit Icon, this icon let us configure the screen content of this particular Screen Set. By clicking on this icon, you go to a configuration page where you can upload video, image, define web pages or video streaming URL corresponding to the Screen.
- Remove from the list Icon, this icon is used to erase a particular Screen Set. By
 clicking on this icon a popup windows alert you about the action of erasing the
 screen set, if you are sure that you want to erase the screen set, you click on
 Remove button otherwise you click on Cancel button. The erasing process is
 irreversible; you cannot recover the erased screen set.

Show Details option: If you click on this option, the content of the each screen set will be displayed on the screen as follows:



With this option is easer decide if the item can be erased.

Search Screen Set Name: This option allows us to search for specific items. We can search for items starting or ending in some known characters, as illustrated in the following screen, where we search for the string of characters "jan17":



Refresh Screen Set Use: Click on this button to refresh the Last Date Use and In Use state for each screen set.

City Time Setup: This option allows configuring a panel that displays time and date of two different cities. The purpose of this panel is to show this information in different screen templates. This information was specifically requested and programmed for a client.

Config SD Card Videos List: This option allows using a video stored in a microSD card up to 32 GB installed at the GMHD.7D Device. The video becomes the same as the video contentuploaded in our site. This option can be used in large size videos 1Gb or more.

This option is also used with wireless, Transportation, or cellular network connections where restrictions of bandwidth will not allow downloading large video files.

Config Menu List. This option allows to configure some especial screens for particulars client. It is used to create screen that show meals menu for restaurants, where we can configure different menus depending of the day.

Screen Set Configuration:

As explained before, when we click on the Edit icon we can configure the screen content using this form:

Green Media HD User: ADM - Test7					
Screen Set Configuration					
Screen Set Name: 00 DL Office test WEB Site: http://www.gmhdcorp.com/manila/dos.htm (Sample WEB format: http://greenmediahd.) WEB TV URL: http://192.168.1.167:80/hdmi (Sample WEB TV format: http://greenmediahd.)	.com/)				
Target Device: Android					
Image file: kickoff Show Image as: Template: 1 volympics.png	v Zone: 1 ∨ Position Horizontal ∨				
IMAGE UPLOAD Browse No file selected. (JRG,PGN,GIF format, up to 9 Mb allowed.) Upload Image Upload Image Upload Image	ne Celebrationi Kickoff Breakfast ay, August 5" m 10:00a.m. Everywhere Cafe UISA DOWNload				
Video file:					
VIDEO UPLOAD Browse No file selected. (mpg.mp4,avi,wmv,mov,dat,asf, up to 1 Gb allowed.) Upload Video	Delete Delete				
Back					

Screen Set Name is the name we create in the former page to refer the screen content configured in this page. We can modify this name here if necessaryto help you remember the content you upload. As an example we create this screen content with the name " new set".

WEB Site. This option is used to define the URL of a web page that we want to show in the screen in any sequence of the play list.

WEB TV URL. This option is used to define the video streaming URL that we want to show in the screen in any sequence of the play list.

Save Data: If you click on this button, all modifications made in Screen Set Name, WEB Site and WEB TV URL are saved in the database.

IMAGE UPLOAD: This option is used to upload an imagefile that we want to show in the screen in any sequence of the play list. This image is in JPG, PNG or GIFF format. In the case of a GIFF format it will show animated in the play list sequence where it is defined. To upload an image file, first click on the Browse button and look for the image file you want to upload. Once you have a selected image file, click on Upload Image button to send the image file to the server. The image you selected will be displayed in the TV object at the right side of the Upload Image button and the name of the image file uploaded appear at the right of the message Image file, all this indicate that the file is in the server. The GIFF file is not animated in this case, only static image will appear, the animation is only available in the play list that is running.

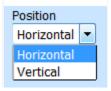
You can also download a previously uploaded image clicking on the Download link that is below the image shown. If there is not image previously uploaded this link does not appears.

As we will explain later, the screen shown to the public may use different templates, which divide the screen in multiples zones. The image selected here could be deformed depending on what template and what zone is used. The image always adapts to fix in the zone area. If you want to have a more precise idea of how the image will be shown in the different areas of a particular template, you can select the template and zone in the options Show Image as: Template Zone

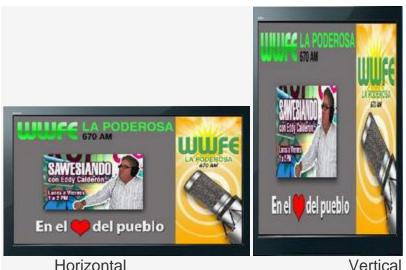
Show Image as: Template: 1 ▼ Zone: 1 ▼

These options are only used to show how the images looks like, but it is not a configuration. The configurations are done in the Play List when we define each sequence as we explain later.

TV displays are normally in horizontal position, but we also can define sequences to run on a vertical TV. The images are also different for this kind of TV, to see hay looks an image in a vertical TV, we can select the position in the option Position.



Position:



Horizontal Vertical

This option is not a configuration; it is only to show how the image will look. If you want to delete the uploaded image from the server click on Delete Button at the right side of the TV object, a warning popupwindow alerts you if you are sure of this action, because this process is irreversible if you are not sure, click on the Cancel button.

VIDEO UPLOAD: This option is used to upload a video file that we want to show in the screen in any sequence of the play list. This video is in MP4, MPG o AVI format, MP4 format is recommended. To upload a video file, first click on the Browse button and look for the video file you want to upload. Once you have a selected a video file, click on Upload Video button to send the video file to the server. The name of the video file uploaded appear at the right of the message Video file, this indicate that the file is in the server.

You can also download a previously uploaded video clicking on the Download link that is below the image that represents the video. If there is not video previously uploaded this link does not appears.

If you want to delete the uploaded video from the server click on Delete Button at the right side of the TV object, a warning pop-up windows alerts you if you are sure of this action, because this process is irreversible if you are not sure, click on the Cancel button.

Once all the screen content are created, we can configure the sequences of the play list.

City Time Setup:Inside the Screen Content configuration option we find the button City Time Setup. When we click on that button the following page is shown:

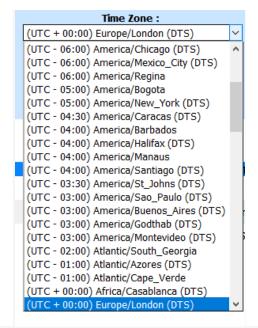
	Green Media HD User test7	
	City Time Setup	
Time Name: Window Title: VISA (CITY 1 TIME Enter City Name: Time Zone : (UTC + 00:00) Europe/London (DTS)	Call Center Windows LOGO Select LOGO from Screen Content NONE Local Ubrary EMPTY TAG Add to the list	CITY 2 TIME Enter City Name: Time Zone: (UTC + 00:00) Europa/London (DTS)
Time Name Austin Miami Miami_kickoff Back	Edit Edit Edit	Remove from lat

This page allows us to define a special panel that can be used in zone 2 of templates 6, 11, and 12 of the sequences of the play list. This information consist of two digital watches that show the time and date of two cities in the word. Besides you can put a logo or text between the 2 watches.

In the option TimeName, we define the name of this panel, this name allows us to select the right City Time Panel in the sequences configuration as we explain later. In the Window Title option we define the text that will be shown in the middle of the two watches if none Windows Logo is defined.

We can select a Windows logo instead of a text in the Select LOGO from Screen Content option. The image of the logo can be found in the local Screen Content or in the library

We can define two clocks corresponding to two cities. We have to define the name of the city in the Enter City Name option for CITY 1 and CITY 2 group. Finally we have to define the time zone for the two cities defined. We select the time zone from the Time Zone option list for each zone as shown:



Once we have defined all the necessary data, we click on the Add to the list button and the data is saved in the database and is shown in the table list below You can now modify the saved data if you click on the edit icon of the corresponding row in the table, or delete any defined City Time data by clicking on the erase icon of the corresponding row.

If we click on the edit icon to modify the data of any defined City Time, the following page is shown:



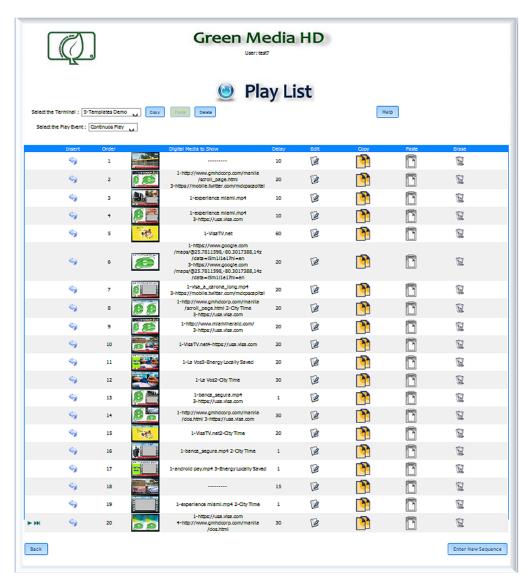
Notice that the current time in each city is shown below the Time Zone selection, this help us to review if the selection made is correct.

Once you make all the necessary changes, click on the button Update Data to save the new changes.

Play List:

The play list show the list of sequences that will be shown in a TV display. Each sequence contains different screen contents that we have already created as explained previously, and these contents are shown in differentzones of the screen depending upon the template selected for that sequence. The sequences are rotated in the order of the list, so when we reach the last sequence we start again for the first sequence. The Rotation Sequence creates the device Play List.

The following page is used to configure the play list.



Select the Terminal: A terminal is an abstract location that hasa TV Display for showing the play list. The number of terminals that a client poses is equal to the number of licensesthat client purchased. You can run different play list in different terminals located in different places. You can also have different places with the same terminal showing all the same play list, or combine the two options. All terminals are updated every period defined in the system, if you modify a sequence of any terminal in the configuration web site, all the TV displays that represent the terminal will be updated.

For users that have multiple locations this selection allows to program the same Play List or Sequence, or different sequences to each terminal (TV screens). It also allows copying the complete program from one terminal to another or to make a base copy and make user modifications as needed at each terminal.

As we explain later, you can define an alias name for each terminal or use the default terminal name, such as Terminal Number 1, Terminal Number 2,.. and so on. The Copy button allows us to copy the entire play list in the clipboard and the Paste button allows us to paste the play list in a new terminal or at the end of the play list of other terminal.

The Delete button allow us to erase the whole play list for the selected terminal. This process is irreversible, so a warning windows pop up to make sure that you want to erase the play list. In you are not sure click on Cancel button in that window. The Help button give you information about the functionality of the configuration process in this particular page.

Select the Play Event. There are five kinds of events, the continuous play, the time schedule event, the periodic event, the geo located event and the linking events in a touch screen display. The continuous plays is the normal option, and is the play list that runs indefinably in a circular way during the 24 hours of the day. The time schedule events are play lists that runs only for a defined hours of the day and a defined day or days in the week, you can define various time schedule events as we discuss later. The periodic events are play lists that run periodically during defined hours of the day and a defined day or days in the week, for example, a play list can be configured to interrupt the continuous play list every five minutes, from 1.00 pm to 5.00 pm, from Monday to Friday. The geo located event is a play list that is moved to the main play list depending on the location of the GMHD.7D device that is running the play list. The linking events are those that can be linked to an specific zone of the template of the sequence in a touch screen display or when a mouse control is used. When we touch or click on a zone with a linked event, the play list of that event start running until the last sequence or the interruption button of that event, returning to next sequence of the main play list.

Except the Continuous Play option, corresponding to the continuous play list event, the rest of the events must be configured in the Playout Definitions Menu Option described later.

If you select a play event different from Continuous Play, the Play List Page will appear as follows:



where you can see information about the schedule of the event. In case of a periodical event, the Play List Page will appear as follows:



where you can see the message Periodic Event every XX (secs) at the right of the schedule information, showing the time in seconds that the event will interrupt the continuous play list inside the schedule programmed.

The Table. The table in this page shows the different sequences of the selected play list in the selected terminal.

This table has the followings columns:

- Insert Icon, allows us to insert a new sequence in the position of the line of the icon
- Order, : Indicates the sequence of the media in the Play List.
- Digital Media to Show: Has and Image of the content of the programmed sequence to identify it and the names of Videos and Images files, web pages, etc, programmed in the sequence.
- Delay: The duration time of the media content of that sequence that will be displayed in the screen.

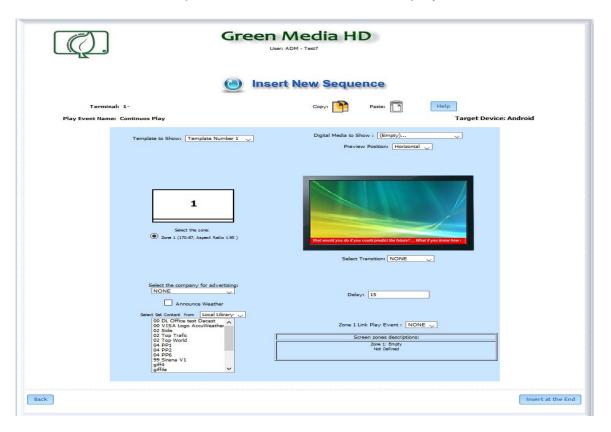
- Edit Icon: If we click on this icon we can edit and modify that particular sequence, the same happens if we click on the image that show the screen content of the sequence in the Digital Media to Show column.
- Copy: Selects all the screen content configured for that particular sequence to copy or duplicate it in another existing or new sequence of the Play List.
- Paste: Paste all the screen content copied from a sequence in another new or existing sequence of the Play List.
- Erase: If we click on this icon the sequence will be erased from the Play List This
 process is irreversible, so a pop-up windows alerts you to prevent delete the
 sequence by mistake. If you are not sure of deleting the sequence click on
 Cancel button in that window.

Enter New Sequence. The first step to create a play list is to create the sequences. To do that we have to click on this button.

Insert New Sequence:

You get this option when you click on Enter New Sequence button or if you click on the Insert Icon in a particular line position of the table of the play list When you click on Enter New Sequence button, the sequence is placed at the end of the list, if you want to place the sequence between any two sequences of the list use the insert icon instead.

This option allows programming the screen content of a sequence of the play list. The screen content of a sequence is the visual media to display in the TV screen.

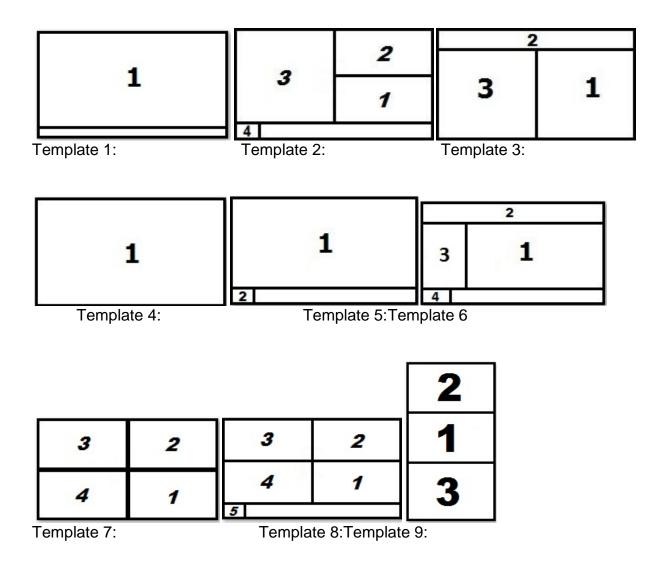


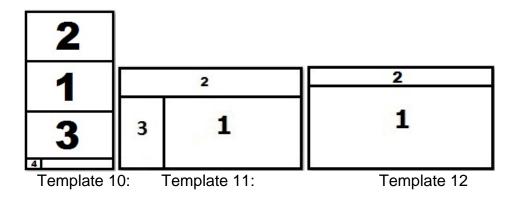
The Copy Icon allow us to copy all the programmed sequence in the clipboard to paste it in another new or existing sequence.

The Paste Icon allows us to use the same configuration of another copied sequence.

Template to Show: First select the Template to use:

You have 10 template options to choose from:



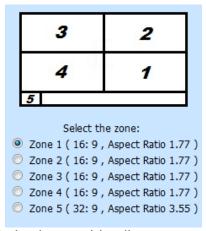


Each number in the different template refer to a screen zone, each zone can has a different Digital Media to Show

The space in blank (with no number) in templates 1, 5, 6, 8 and 10 is used for a ticket taper that shows the configured messages

When you select a Template, a radio check button appear below the template to select the zone to program the Digital Media to Show.

Example for template 8:



For each zone the aspect ratio is shown, this allows you to format the size of the images to match this aspect ratio and not to have any deformations.

Additional templates

If a zone is left in blank (Empty) for the templates 2,3, 6, 7, 8, 9, 10, and 11, the zone at the right or left will be enlarged to fill the missing zone digital media, making possible others type of templates.

Zone 1 must be always defined, otherwise the screen will not be shown.

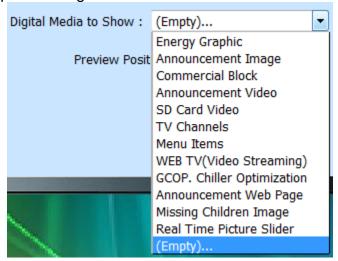
Example of new templates leaving some zones in blank:

This template is configured if y are left in blank ((Empty) sel	you select template 7 and the zone 3 and 4 or 2 and 4 ection).
This template is configured if y blank ((Empty) selection).	ou select template 7 and the zone 3 and 2 are left in
This template is configured if y ((Empty) selection).	ou select template 7 and the zone 3 or 2 is left in blank
This template is configured if y ((Empty) selection).	ou select template 7 and the zone 4 is left in blank
We can have the same results the zone 5. Example:	using template 8, with the addition of the ticker tape and
	5

This template is configured if you select template 8 and the zone 4 is left in blank ((Empty...) selection).

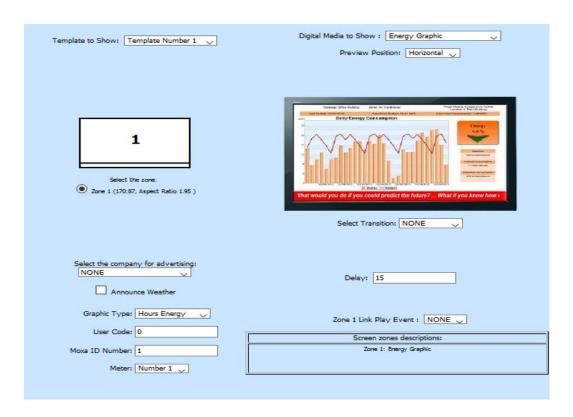
Digital Media To Show. This option allows us select what kind of digital media contained in the screen contents previously created will be displayed in each zone. You must first select the zone in the radio buttons check below the template selection. Each zone has different variety of digital media. Zone 1 has the most variety of digital media to show. The videos only can be configured for zone 1.

To select the digital media to show in a particular zone just click on the selection arrow to display the list of possible digital media for that zone:



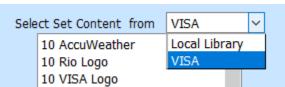
For every media selected, the TV Object below this selection will show different images, and also depending of the media, the rest of configurable parameters may vary to accommodate the specific media to show

 Energy graphic: Is used for our customers to monitor energy consumption in real time as part of the sustainable company program and encourage energy reduction.

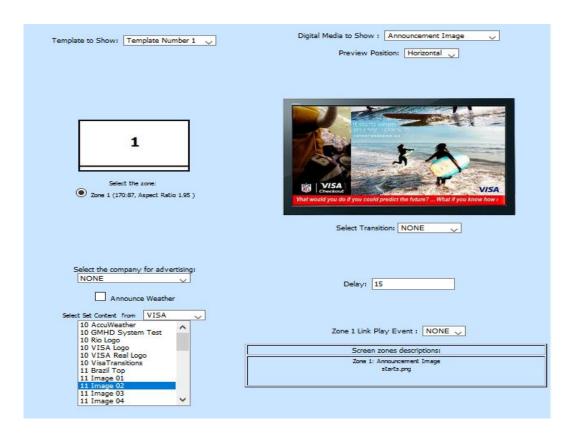


In this kind of media the user can select what type of energy consumption in real time Graphic will be displayed: Hours or days. The user code and Moxa ID number will be provided by GreenMediaHD Energy division when a Measurement and Verification (M&V) hardware is installed at the facility.

• Announcement image: This option is used to show a JPG, PNG or a GIFF Image in the selected zone. The GIFF image will be animated in the TV set of the terminal. The image is selected from the list of the option Select Set Content. We can select from the local Screen Content configured as explained early or choose the content from a library supplied by the administration of the GMHDCorp.com site, as shown:

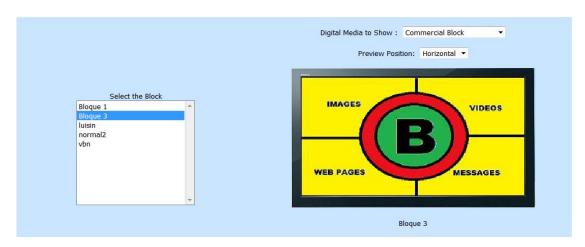


Once selected the image, it will appear in the TV Object. The configuration page for this media is:

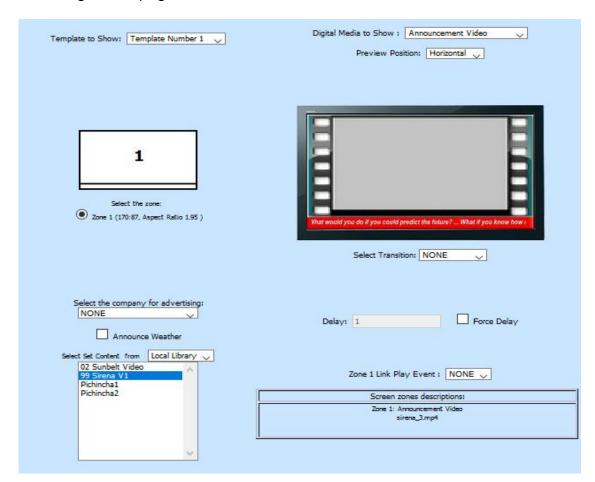


• Commercial Block: This option is used to insert a block of a pre programmed play list into the main play list. This block of sequences usually contains advertisement image, video, streaming video, etc, and you want to insert those sequences many times into of the main sequence. The commercial block also has time schedules that defines the durability of the sequences, this is ideal to promote advertisement of temporal events, ferias, or any promotional advertisement with an start and end time.

The block is selected from the Select Block List, if none block has been programmed, this list is empty. An special image appear in the TV Object, if you click on this image you jump to the configuration block page.



 Announcement Video: This option is used to show a MP4, MPG or AVI video in the selected zone. (only for zone 1).
 The video is selected from the list of the option Select Set Content, and can be selected from the local screen set or from the library as explained early. A movie image will appear in the TV Object



• City Time: This option is available only for zone 2 of templates 6, 11, and 12. With this option we can show the panel that display the time for two cities that have different time zone.

The configuration page for this media is:

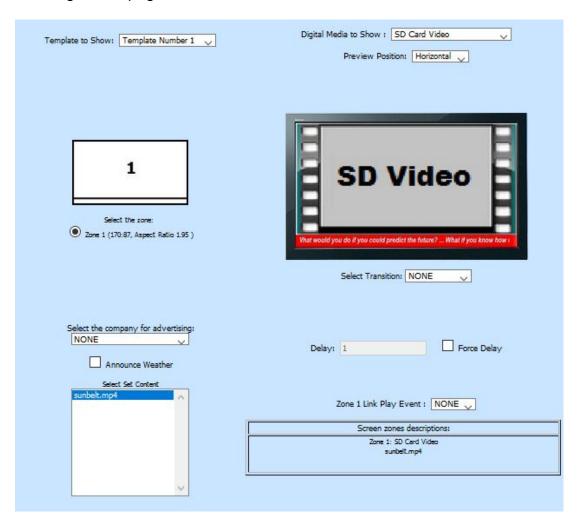


To select the desired City Time panel, we choose it from the Select Set Content. The panels listed here are defined in the local City Time Setup option, as we explained early, or we can get them from the administrative library

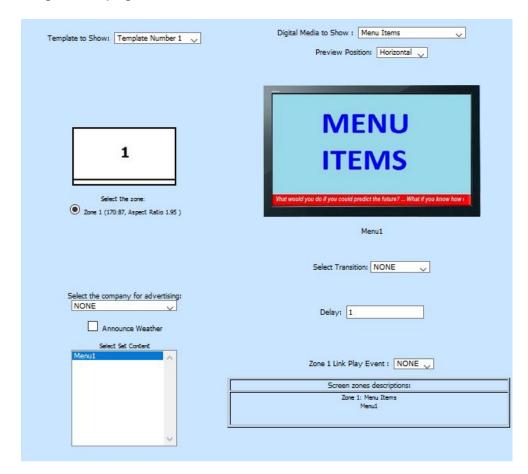
SD Card Videos: This option is used to show in zone 1, theMP4 video files that
are locally saved in the SD card of the GMHD.7D device so the video is not
downloaded from the server. These files shall be in the \VIDEO folder of the SD
of the GMHD.7D device. This is normally used when there is a restriction of
bandwidth for long high definition files as in mobile applications for buses, public
transportation or specialized video as in Clinics, waiting rooms and church
services.

The SD Videos are configured in the Screen Content configuration clicking on the Config SD Card Videos List button as we explain later.

The video is selected from the list of the option Select Set Content, if no SD Card Video was configured, this list is empty.. A movie image with the message SD Video will appear in the TV Object



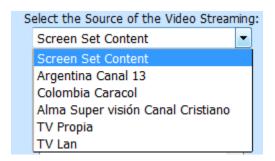
 Menu Items: This option is used to show the restaurant menus created in the screen content. The menu image and text that will be displayed in the sequence depends on the day of week configured for that menu, if a particular day of week if not defined this sequence not appear in the screen that day of week. The Menu is selected from the list of the option Select Set Content, if no menu were created, this list is empty. The message Menu items will appear in the TV Object.



 WEB TV (video streaming): This option is used to show a video streaming in the selected zone (only for zone 1).

The source of the video streaming is defined in the Select the Source of the Video Streaming option

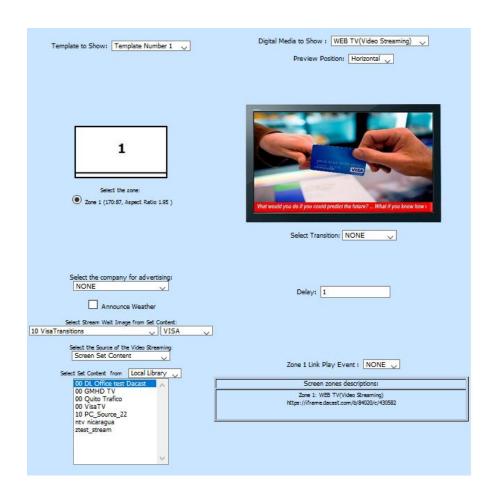
The source can be the Screen Set Content or predefined channels configured by the administration of GreenMediaHD web site.



By default the source is the Screen Set Content, the video is selected from the list of the option Select Set Content, and it could be located in the local screen set or in the library. If none video streaming is defined, the list will be empty. An special image appear in the TV Object by default as shown:

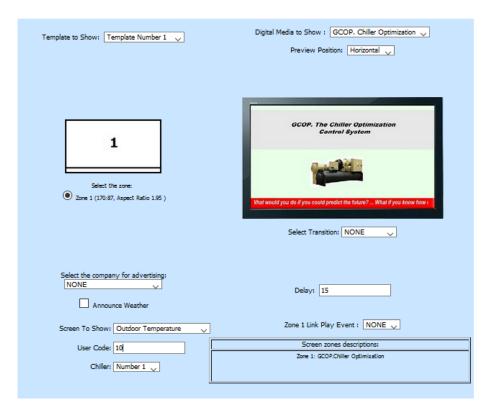


When you put a video streaming on the screen it takes some time to start showing the video due to the loading of the buffer process. While this time passes by, we can show an alternative image to introduce the video, this image can be selected in the Select Stream Wait Image from Set Content option, in this case, that image will appear in the TV Object instead of the specific image we shown above



• GCOP. Chiller Optimization. Is used for our customers to monitor chiller optimization algorithms in real time in a chiller plant as part of the sustainable company program and encourage energy reduction.

The configuration page for this media is:



In this kind of media the user can select for a particular chiller number, what screen or trend graphic of the EMS system will be displayed. The user code number will be provided by GreenMediaHD Energy division when the GCOP hardware is installed at the facility.

GCOP: Green Chiller Optimizer Program Register trade mark of GreenMediaHD LLC.

 Announcement Web Page: This option is used to show a web page in the selected zone.

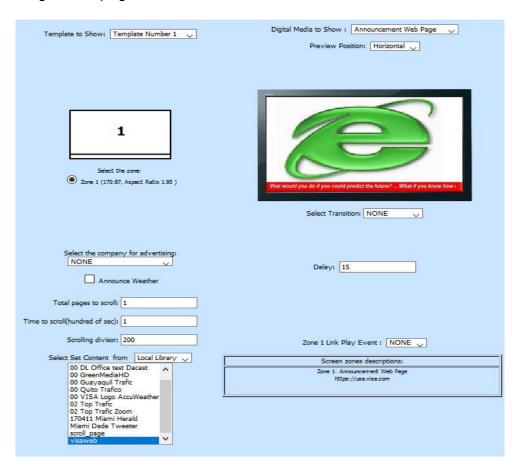
It can be used in zone1for all templates; zone 3 of template 2, 3, 6, and 11; and zone 4 in templates 7 and 8.

The web page is selected from the list of the option Select Set Content and it can be found in the local screen set or in the library.

If the web page to show is larger than height of the TV screen, we can scroll the web page automatically in the TV screen. To do this, first we define in the Total pages to scroll option, the amount of parts of the web page that will be shown.

A special image will appear in the TV Object to inform that the Announcement Web Page is selected.

The configuration page for this media is:



For example, we can have a web page that its large is five times the TV screen height, so to show the whole web page scrolling in the TV screen, we have to set a value of 5 in the Total page to scroll option. Secondly, we define the time interval to update the scroll (make and step movement) in the Time to scroll option. This time is set in hundreds of seconds so a value of 10 means a second. Finally, we must define in how many parts we divide the height of the TV set to

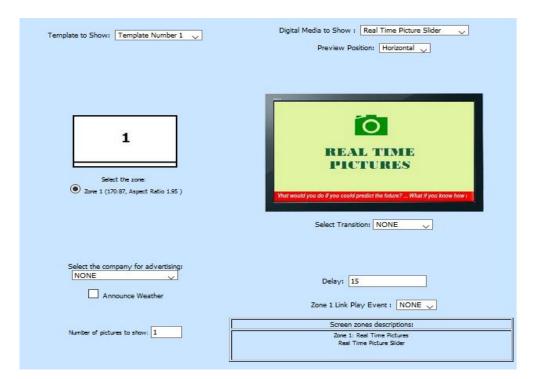
mark the step of the scroll, for example, a value of 3 means that in every scroll update the TV screen is moved up a third of its height. This value is set in the Scrolling divisor option. If we have a large web page to show and we want a smooth scroll, we have to set the minimum value (e.g. 1) in the Time to scroll option and a high number (e.g. 200) in the Scrolling divisor option

 Real Time Picture Slider. This option is used to show the pictures taken with the support camera and saved in the GMHD.7D in the selected zone. (only for zone 1).

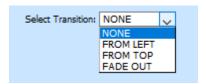
The support camera is an GMHD.7D application that allow us take pictures with an smartphone or table and throw them with the finger or shaking the smart phone to the GMHD.7D that run the sequences of the play list. This pictures are shown immediately in the screen of the TV that is showing the sequences, and they are saved in the GMHD.7D deviceto show then later in the sequences of the play list where this Digital Media is inserted.

You must define the number of picture to show in the sequence, if there are more pictures than the number here defined, the next time the sequence is displayed, the following pictures will be shown until all pictures are shown, and start again for the first picture. Note that the pictures are saved in the GMHD.7D device, they are not saved in the web site, so they are not shown in other Display with the same terminal.

A special image will appear in the TV Object.



Select Transition: This option is used to define a transition between two consecutives sequences. Up to three transitions are available.

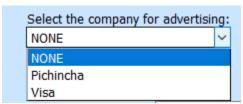


If NONE is selected no transitions occur.

If FROM LEFT transition is selected, the new sequence screen starts appearing from the left covering the previous sequence until the new sequence covers the full screen. If FROM TOP transition is selected, the new sequence screen starts appearing from the top covering the previous sequence until the new sequence covers the full screen. If FADE OUT transition is selected, the screen turns white and the new sequence screen starts a fading appearing in the screen.

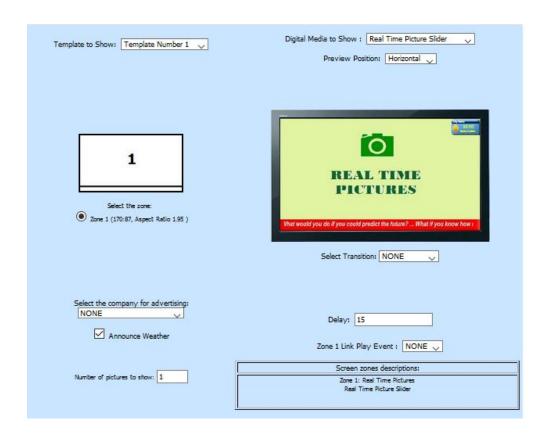
Select the company for advertising: This option is used to associate the configured sequence with a Company that is being annunciated by the sequence. First you must create a list of companies which advertisements will be displayed in the sequences of the play list. The list is created using the Advertising Companies Option of the main menu that will be explained later.

:



If NONE is selected, this sequence won't be associated with any company.

Announce Weather Option if selected a panel with information about the current weather will be displayed in any of the four corners of the screen as explained later. In the TV Objet of the configuration web, a little panel is placed in the upper right corner:



Delay: This is the time the Media will display in the Screen, that is, the duration of the sequence

When you select Announcement Video or SD Card Video in the Digital Media To Show option, the delay is automatically assigned a 1 second and cannot be changed, indicating the system will wait until the video is completed before going to the next sequence in the Play List. In this case, if the Force Delay option is checked, the Delay time indicates the time that the video will play before it pause, then play the followingssequences in the playlist and in the next sequence where this video appears, this video will re-start at the pause location. This is used to view a long movie, a video from the user copied in a microSD card. Up to 32 GB of a movie is allowed. Only one movie at the time shall be programmed as Force Video.

Force Video:When selecting anAnnouncement Video or SD Card Video in the Digital Media To Show option, this option allows to pause a long video, play a media in the next sequences and continuing to play the paused video from the last position the next time the play list finds it in the sequence. Force video is normally used in combination of SD Card Video, where long videos are saved.

Zone Links: The zone links are used in touch screen displays or when a mouse could be used. When this option is used, you assign a play list event to an specific zone of the selected template. You can assign a playlist event to each zone. If a particular zone has assigned a play list event, when you touch or click on that zone, the sequences of the associated play list even start running until they reach last sequence or return by

user operation, and the main sequence continuous playing in the next sequence after the jump.

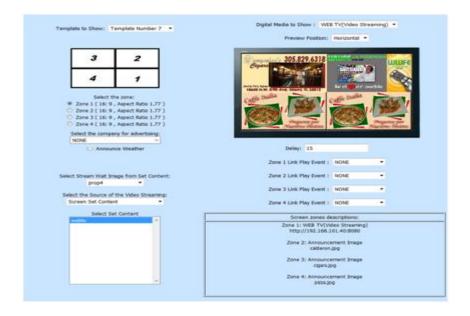
To assign a play list event to a zone, click on the selection list in the option Zone X Link Play Event (where X varies from 1 to 4 depending on the template), a list of defined play list event is show, if you select NONE, none event is assigned. An example is:



Information Table: In the lower right part of the configuration page, there is a table that inform us about the screen content selected for every zone for the selected template, as the following example:



In this configuration:



Once the sequence is configured, you must click on Update Data Button to save all modifications in the database.

Playout Definitions:

This option in the main menu, allow us create different play list events. You can define time schedule events, periodic events within schedules, events used in zones links as explained early and events associated to a geo location, that is, play list events for different locations so the main play list changes to another play list depending on the location of the GMHD.7D device that is running the play list.

The events are created for every terminal independently but you can also create general events that will appear in all terminals unless you defined the terminals that will not show this general event.

The configuration page is as follows:



Event Name: In this option we define a name for the play list event, this name will be used as an identifier in all the selection lists associated with play list events to properly select the desired event in any configuration that it is required

Event Days: You must check the days of the week when the play list event must move to the main play list event. You can check various days, if none day is checked, the event is not a time schedule event, it instead could be used for zone link or geo location. **Start Time Hour and Minute**: Indicates the hour of the day (in 24 hour format) and minuteswhen the play list event is moved to main play list and start playing. **Ending Time Hour and Minute**: Indicates the hour of the day (in 24 hour format) when the play list event is removed from the main play list and stop playing. The next sequence of the main play list, before the jump to the event, will be played Note: If none day of the week is defined, it is not necessary to define Start and Ending Time.

Execute periodically: Indicates if the schedule event will execute periodically. That means that this event will interrupt the continuous play list event or any other event that's running, every interval of time configured in the Execution Period option. The difference between this periodic scheduled event with an scheduled event is that, instead of playing continuously all the time defined for the schedule event, the periodic event interrupts the event that is running and plays all defined sequences every interval of time, returned to the event being interrupted when the last sequence of the periodic event finishes, and this happens inside the time scheduled for this periodic event. **Order**: Indicates in which order will execute two periodic events, If you define 2 periodic events, one every 5 minutes and other every 10 minutes, when the two events try to execute at the same time, the event with lesser order number execute first, if the order is the same, the first event defined in the list execute first.

Execution Period: Indicates in which order will execute two periodic events, If you define 2 periodic events, one every

Geolocation Group Number: This number associate a group of play list events that depends on the location of the GMHD.7D device. If you, for example, have 5 play list events with the same Geolocation Group Number, let's say number 1, and each of this 5 play list events has a different location defined, then if the GMHD.7D device is located in one of the location defined, the play list event associated to that location will be moved to the main play list and will start playing. If the GMHD.7D device move its location to another defined location associated to another play list event, then the current playing event stops and the new play list event is moved to the main play list and start playing. You can define up to 9 different groups. If none geo location is used you must select Not Used option that is the default selection

Location Property: You need to define which property of the geo location system will be used to identifies the location of the GMHD.7D devices, the properties are shown below:



Property Name: Depending upon the location property selected, you must specify a name for that property, so when the GMHD.7D compares the name of the property given automatically by the geolocation system with the property you define for the play list event and both match, that event will be moved to the main play list and start playing. For example, for the location property Postal Code you can define the Property Name 33178, then if the GMHD.7D enters in a location with that zip code number, the play list event associated to this code will start running.

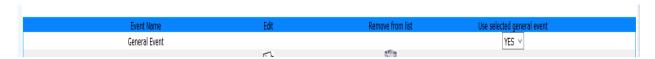
Once you define the event name, time schedules data, and geo locations data, you must click on the Add to the list button to save the changes and the event name passes to the list in the table below.

The description of this table is as follows:

Event Name: This is the name of the play list event defined.

Edit Icon: If you click on this Icon you go to a page that let you modify all the parameter defined in this page when you create that event. If the event is a general event (an event defined to appear in all terminals) you cannot edit it from a specific terminal definition, as the case we show above, you can edit a general event if you select the terminal "All Terminals Event" as we explain later.

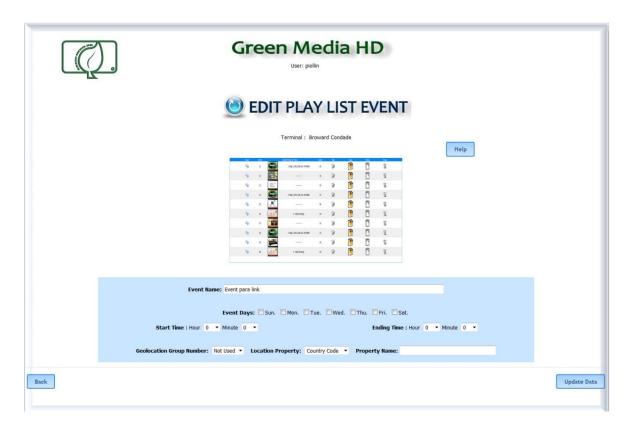
Remove from list Icon: If you click on this Icon the play list event is erased. This operation is irreversible so an alert windows pop ups to make sure that you really want to erase the event, if you are not sure you click on the Cancel button of that window. If the event is a general event (an event defined to appear in all terminals) you cannot erase it from a specific terminal definition, as the case we show above, you can erase a general event if you select the terminal "All Terminals Event" as we explain later. Use selected general event: In this column you can decide if a defined general event will be used in the terminal we are configuring. If the event shown in the row is a general event a select option appears in this column as shown:



You can also define what terminals will have a general event when you edit the general event as we explain later.

If the event in the row is not general the letters "---" will be shown.

When you click on the Edit icon, the edit page appears as follows:



In this page you can modify the Event Name, Event Days, Event Times and Geo Location Data in the same way we just explained when creating the event. General Events:

This event will be shown in every terminal unless you explicitly define what terminals will not show this particular general event. Using this kind of event you don't have to define the same event in each terminal, you define the event only once and it can be used in all terminal.

To create a general event, we go to the Playout Definitions Screen, and select "All Terminal Event" as we show:



Select the Terminal : All Terminals Event \vee



All the configuration here is the same as the explained in the case of the configuration of the events for each terminal. In the column "Use selected general event" appears the letters N/A because this option is not available for general events definitions.

When you click on the edit button of a general event, the following page will we displayed:

	Gre	een Media HI	
	(i) El	OIT PLAY LIST EV	'ENT
		Terminal: All Terminals Event	Help
	Event Name: General Event Event Days: Start Time: Hour ○ ✓ Minute ○ ✓	Sun. ☑ Mon. ☑ Tue. ☐ Wed. ☐ Thu.	Update Data □ Fri. □ Sat. Iding Time: Hour 23 ∨ Minute 59 ∨
	Execute periodically:		recution Period (secs) : 60
	Terminal Number 1	Alias Name	Use General Event YES
	2		YES V
	3		YES 🗸
	4		YES 🗸
	5		YES V
B	6		NO V

All the options in the first table (with a blue color background) are the same as the options explained in the events defined in each terminal.

In the second table appears each terminal number and its alias name, and the "Use General Event" column that allows us to define in which terminal the event will be shown or not. If we select YES in the row corresponding to a specific terminal number, that event will be shown in that terminal. Otherwise, if you select NO, the event will not be shown in that particular terminal. By default, all the terminals will show a general event, so basically you have to select NO to not include the event in a particular terminal.

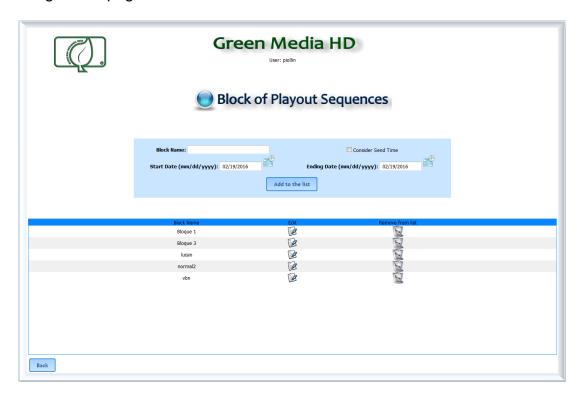
As explained early, you can also define if the general event will shown or not, when you select a particular terminal in the Playout Definitions screen.

Block of Playout Sequences:

In this page we program the sequences and time duration as advertisement blocks that will be used as repeated small playlist in the main program. Each block can contain pictures, videos, streaming videos and Web pages access.

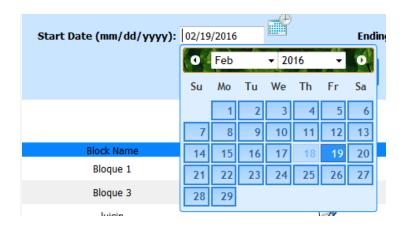
Time schedule advertising campaigns are possible with block configuration. You can pre-program advertising campaigns to start and stop in a predetermined day and in an specific location. All the media inside the block will start and stop in the specified time schedule.

The Block sequences can be used in the Play List. The configuration page shows as follows:



Block Name: In this option we define a name for the block of sequences, this name will be used as an identifier in the selection lists of the sequence configuration when you select Commercial Block as the Digital Media to Show, as we explain previously. **Consider Send Time.** If you select this option the block of sequences will be played only during the start and end date indicated below, this allow you to show the advertisements contained in the block only in the desired dates.

Start Date (mm/dd/yyyy): Indicates the day of starting to play the sequences of the block. You can select the date when you click on the calendar icon, as we show here:



Ending Date (mm/dd/yyyy): Indicates the day of ending to play the sequences of the block. You can select the date when you click on the calendar icon. If the actual real time day past this date, the block sequence will not play again unless you modify the ending date or uncheck the Consider Send Time option..

Once you define the block name, and dates schedule of the block list, you must click on the Add to the list button to save the changes and the block name passes to the list in the table below.

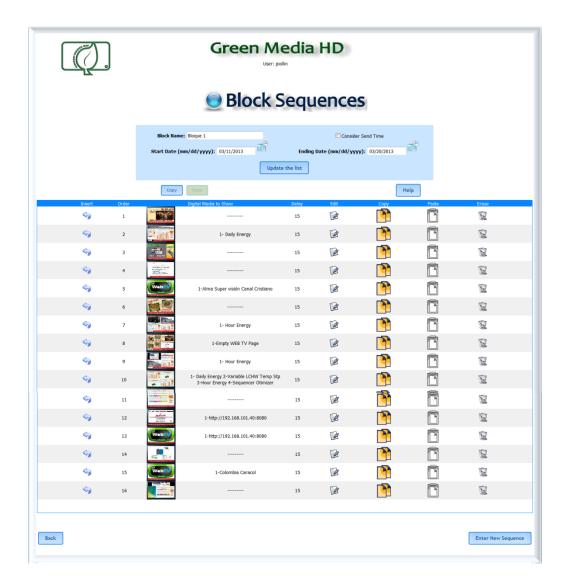
The description of this table is as follows:

Block Name: This is the name of the block of sequences already defined.

Edit Icon: If you click on this Icon you go to a page that let you modify all the parameter defined in this page when you create that block

Remove from list Icon: If you click on this Icon the block of sequences is erased. This operation is irreversible so an alert windows pop ups to make sure that you really want to erase the block, if you are not sure you click on the Cancel button of that window.

When you click on the Edit icon, the edit page appears as follows:



This page is very similar to the Play List Configuration explained before but you can modified the date schedules of the block modifying the option Start Date, Ending Date and Consider Send Time, the same way we explained previously. Once you modify this data click on Update the List button to save the changes.

You can Create, Insert and Modify sequences the same way we explain in the configuration of the main play list.

Advertising Companies:With this option you define the name of the companies which advertisements will be shown in the sequences of the play list.

When you click on this option, the edit page appears as follows:



Enter the Company Name in the form and click on the button Add to the list.

The name of the entered company is added to the list of the table below.

This name can be modified inside the table, and to save the changes you must click on the icon of column Save New Names. If you want to delete the company name just click on the icon of the column Remove from list.

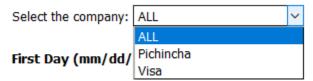
As explainer earlier, the names defined here will appear in the option "Select company for advertising," when you create, insert, or modify sequences in the play list.

The association of companies to the sequences of the play list allow us to measure the total time that the advertisements of an specific company have been shown (time of air), and how many times in a day those advertisements have been show.

In order to see this timing per company advertisement information, we click on the button Show Display Time at the bottom of the page, then the following page is shown:

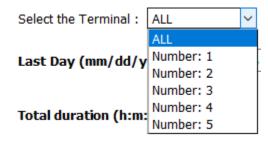


To select a particular company we can choose from the Select the company option List:



If we select ALL, all the configured companies will appear in the list. In order to see only the particular company we are interested in calculate the "time of air", we select it from the list.

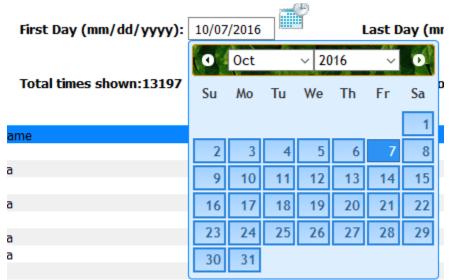
To select a particular terminal we can choose from the Select the Terminal option list:



If we select ALL, all the configured terminals will be shown. If we want to calculate the "time of air" in a particular terminal, we select it from the list.

We can select also the days interval where we want calculate the "time of air"

To do this we click on the icon of the First Day Option and select the starting day of the advertisement transmission:



And we do the same with the Last Day Option to set the last day of transmission . If no date is selected in First Day and Last Day, all the days from the fist transmission to the last transmission will be displayed.

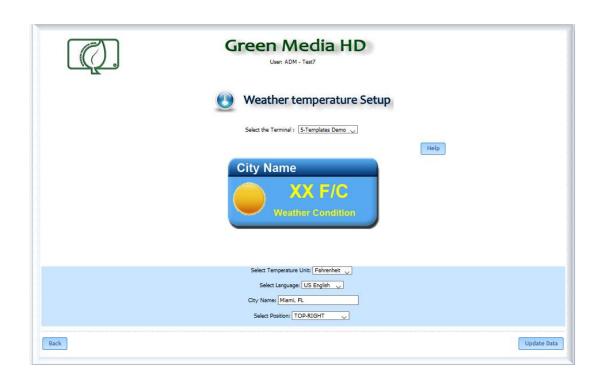
The calculated Total duration (h:m:s) and Total times shown of the advertisement of the whole date intervals for the companies and terminals selected, will be shown above the table list.

In the table list will appear the Total duration (h:m:s) and Total times shown of the advertisements every day of the date interval selected for every company and terminal selected.

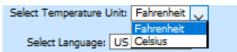
Weather Temperature Setup:

This option in the main menu, allow us configure the Weather Widget that may be shown in any corner of the screen as described early, checking the Announce Weather option.

The configuration page is as follows



Select TemperatureUnit: With this option you can choose if the temperature value is displayed in Fahrenheit or Celsius degrees, as we show here:

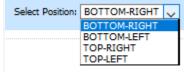


Select Language: With this option you can choose in what language the weather condition will be displayed, as we show here:



City Name: In this option you must specify the name of the city and the country or state (separated by a comma), where you want to get the weather condition. Example: Miami, FL or Quito, Ecuador. If this widget is not shown in the screen of the terminal TV where the sequences are displayed, the name of the city probable is not correct, so you have to change it till you get the correct information.

Select Position: With this option you choose in what corner of the screen you want to show the Weather Widget. the possible selections are:



Depending on the weather condition, the image that appear at the left side of the widget will be different, reflecting the weather condition.

Messages Configuration:

Enter messages to be display in a ticker tape below the screen. Messages can be up to 255 characters long, use only alphanumeric characters

Edit messages:

Just type your message and upload to the cloud, the messages will dynamically be updated to your screens with information of services, products, promotions, announcements, or direction messages to the users.

If the first message is selected as Visitor it will be display every other message. Messages are selected in 2 segments. Every segment has 3 sentences, you can repeat 1 to 5 times every segment before the next segment is display. Error and system messages might appear in the ticker tape.



Ticker Tape Color:

You can select the background and letters colors by selecting from the select icon below.

Now you can use the power of cloud computing to promote your products or services and dynamically change your digital content easily.

Six messages in two blocks are available for use as an information center for your benefit or promotion

Holiday's Configuration:

Holidays can be programmed as a single day or multiple days. For a single day select holiday from the calendar icon on the left, and select the day. For multiple days, select the start day in the left and the end day in the right calendar. The system will recognize the holiday programmed and use the holiday time schedule programmed in Schedule to display the sequence.

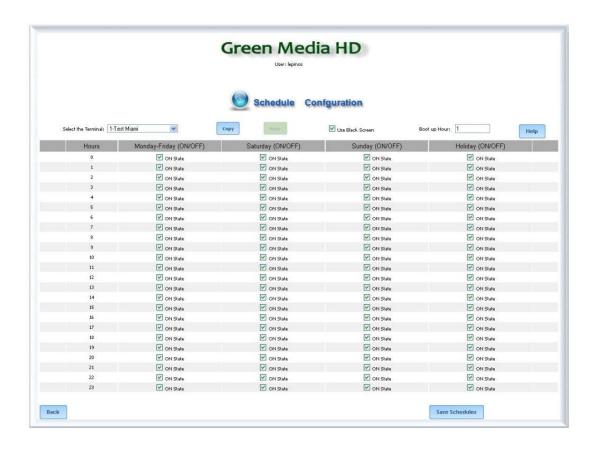


Schedule's Configuration:

By default all the hours are selected ON. To modify the time schedule the screen will be ON during week days (Monday-Friday), Saturday, Sunday or Holiday, unselect the hours you like the sequence to stop.

When you select OFF in your sequence, you go green, reduce energy and the screen will change to black to avoid screen burnout. The program is still running in the background, if you select a new time schedule when the screen is OFF, the program will recognize the change in the Cloud schedule programming and weak up to start the sequence from the beginning.

Boot UP Hour. This option allows the user to force a reboot to the Computer and reset the network connection and re-start the program to avoid field conditions where the controller is disconnected from the network for local conditions.



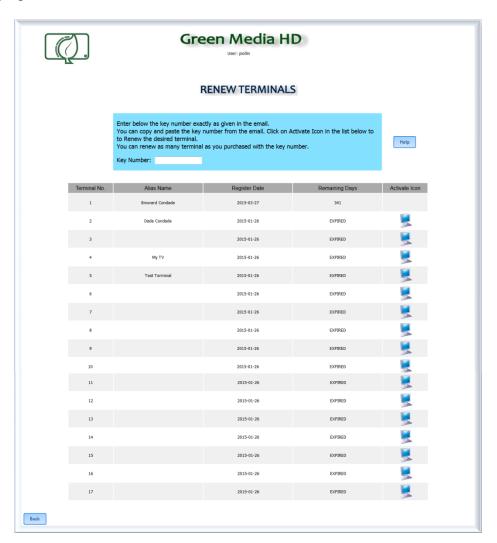
By default all the hours are selected ON. To modify the time schedule the screen will be ON during week days (Monday-Friday), Saturday, Sunday or Holiday, unselect the hours you like the sequence to stop.

Web Information Update: The default frequency of updates in the GMHD.7D device, of all the modification made to the sequences in the web server is every hour and also every 5 minutes in the first 15 minutes of every hour. You can change this rate to the frequency specified in the GMHD.7D selecting the Special (GMHD.7D configuration) option, where the real frequency is programmed in the GMHD.7D device configuration menu.

Key Number:Enter your key number you received from the purchase of your GreenMediaHD device and service, and press ACTIVATE to start your unrestricted service

Renew Terminals: Click on this button to see the remaining active time for each terminal you have, so you can decide which terminal must be renewed.

The page to renew individual licenses is show as:



You enter the key number exactly as given in the email in the Key Number option, then you click on the Activate Icon of the desired terminal. In the list of the table you receive information about the Number of the terminal, the alias name of the terminal, the date of activation of the terminal and the remaining days to use the registered terminal, if the word EXPIRED appears in the remaining days, the licenses is expired and the terminal is not longer updated

Edit Terminal Alias: To better identify each terminal for maintenance and operation you can change the terminal number with an specific description of the terminal or location.

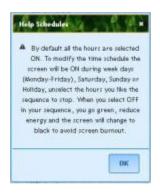


You can give a name to each terminal and use that name in al configuration pages instead of the terminal number. You can define also a message that will be displayed in the ticket tape of the screen this allows you to send different messages from different terminals.

Available Sessions Information: The system keeps track of every terminal connected to the network and will display a Disconnected status if the terminal has not accessed the server in the last 4 hours, or when the program is terminated by the user. We explain this in detail later, when we discuss the Remote Monitoring Terminals

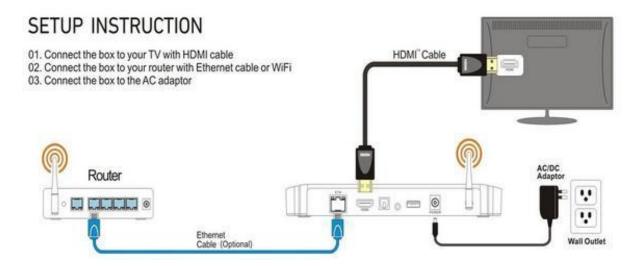
Help:

A help button in any screen provides indication of the subject.



INSTALLING THE GREENMEDIAHD DEVICE.

The installation process is very easy as illustrated in the following diagram:

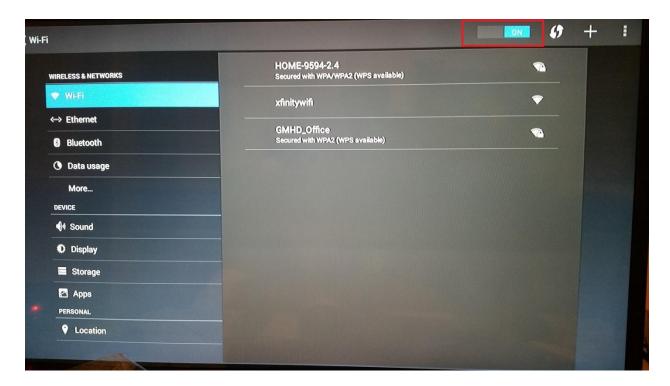


Once you have everything connected you must click on the device settings icon to configure the network as follow:

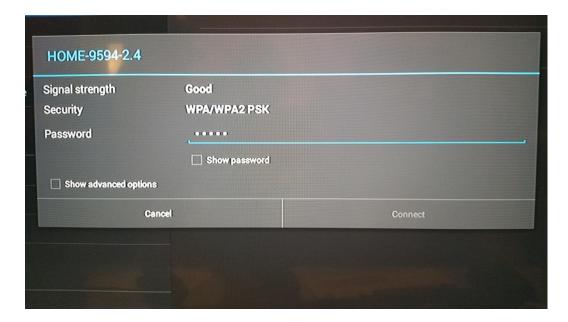


The configuration screen may vary depending of the android device model, but in general, all steps are very similar

The setting screen may looks as bellow:

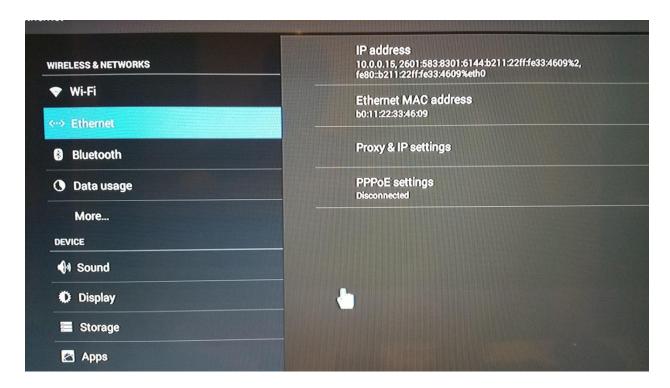


To use a WIFI connection click on the Wi-Fi option and set Wi-Fi ON as the picture above and the device scan all the Wi-Fi connections available. Click on the proper Wi-Fi connection and the following dialog window is shown:



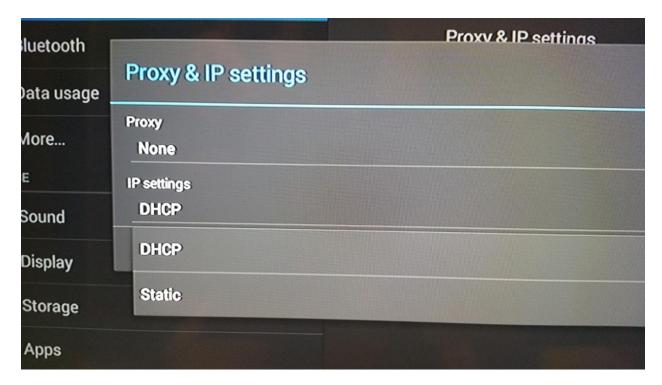
Enter the correct password and click on the Connect button and you are done.

If you use Ethernet cable, set the Wi-Fi OFF and click on Ethernet option as shown bellow:



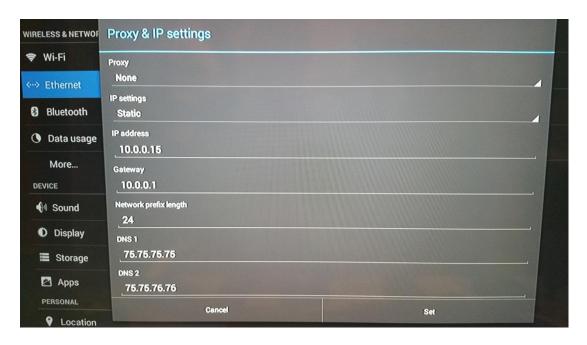
You can use DHCP connection, where the IP address is obtained from the router or set an static IP address.

To set the Ethernet option click on Proxy & IP settings, the following screen is shown:



We can select the DHCP or Static option.

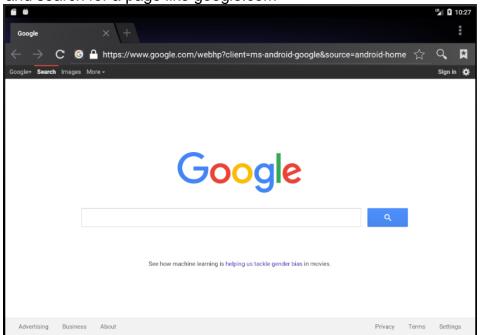
If we use static IP, click on the Static option and the following screen is shown:



Here we must enter all the necessary parameter and click on Set button In order to test the internet connection click on the Browser icon:



and search for a page like google.com



RUNNING THE APPLICATION IN THE GREENMEDIAHD ANDROID DEVICE.

To run the application we must click on the App Icon as shown:



The application opens the following windows:

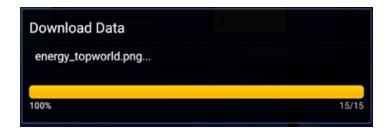


You must enter the User Name and Password provided by GreenmediaHD that authenticate you as a user.

Enter the terminal number to display the Playlist configured to that terminal.

You may check the Register Now option to register your device, so you can run a local demo with no warning of registration.

To start showing your Playlist click on Start Download and the app shows the following windows to indicate the process of downloading:



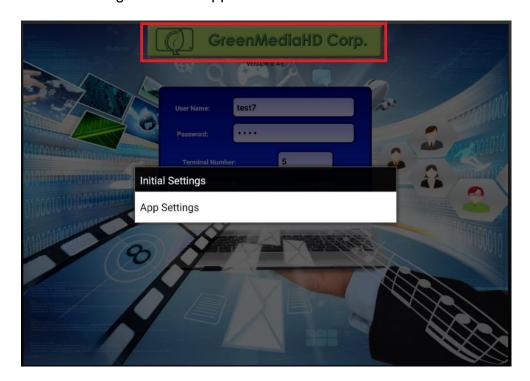
If this windows is not shown, you probably do not has an internet connection or the user name, password or terminal number are incorrect. Check to correct this problems.

The User Name, Password and Terminal Number are saved in the GreenmediaHD android device so the next time you start your app you do not need to enter these data. The app starts automatically after 30 seconds if you do not enter or modify any of these data or enter in the settings as we explain later. Also the app starts automatically after a reboot or power on in the GreenmediaHD android device.

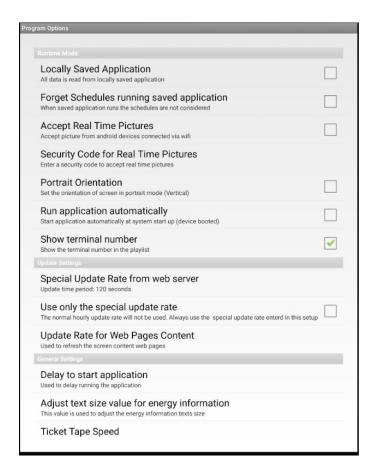
If your Playlist has been shown previously, it means that the digital content has been saved locally in the GreenmediaHD android device. You can click on the Local Demo button to start showing the Playlist locally saved.

Application Setting.

With the application settings you can change the application behavior. To change the application settings you must click the green GreenMediaHD Corp. image and keep pressed the mouse left button (or the finger in a touch screen) a few seconds until the settings windows appear as shown below:



In this window, click on App Settings and the Settings Windows will be displayed as follows:



Let's explain now every setting option.

Locally Saved Application: If this option is checked, all data is read from locally saved application although you click in the Start Download button, so no internet connection is needed. The application must run at least once from the Web Site in order to save all the content in the GreenmediaHD android device.

Forget Schedules running saved application: If this option is checked, the schedules defined for the terminal in the Web Server, as explained early, are not considered, so, the display never turns black although schedules where defined.

Accept Real Time Pictures: If this option is checked, the GreenmediaHD android device accept picture from android devices connected via Wi-Fi in the same subnetwork and running the Support Camera App. The Support Camera App is a GreenmediaHD App used to take pictures from an android device and send them to the GreenmediaHD android device where the Playlist is running, or send images from an android device to the GreenmediaHD android device. The picture taken or the image is inserted in real time into the Playlist shown in the terminal.

Security Code for Real Time Pictures: In this option we enter a security code to accept real time pictures from the Support Camera App.

Portrait Orientation: If this option is checked, the orientation of screen is in portrait mode (Vertical). It is useful for those TV se that are in vertical position (more high than wide)

Run application automatically: If this option is checked, the application starts automatically at system start up (device booted), so you can let de android device unattended.

Show terminal number:If this option is checked, the terminal number is shown in the bottom-right corner of the screen as shown below:

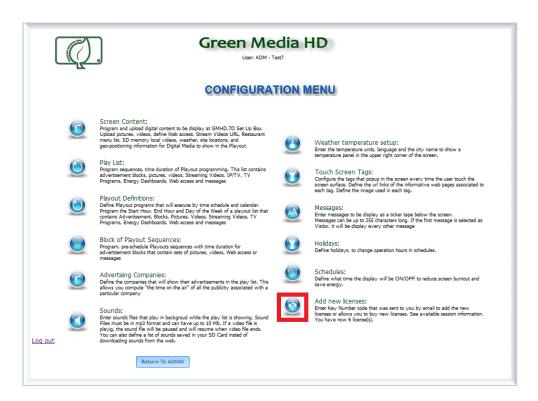


This is useful if you have many terminals in a room, i.e. a call center, and you need to identify quickly the terminal where to show a special content.

Special Update Rate from web server: In this option we enter a value of time, in minutes, to periodically update the digital content of the Playlist that is currently showing in the terminal display.

The Normal or Default update time of the digital content shown in the screen terminal is every hour, that means that every hour the GreenmediaHD device check if there are any new or modified digital content in the Web Server, if there is any change, it is downloaded and the Playlist in the GreenmediaHD device is updated. This means that the digital content can be modified in real time.

To use the Special Update instead the Normal Update, you must select it in the Web Server. First click in the Add New Licenses in the main menu as we show below:



Then in the following page you have this option:

Web Information Update: Special (Adroid Configuration) Vormal (every hour)
Special (Adroid Configuration)

When the Special (Android Configuration) is selected, the GreenmediaHD android device search periodically for new or modified digital content using the frequency of time defined in the settings of the GreenmediaHD android device.

If the GreenmediaHD android device is rebooted, it will change the digital content update period to the Normal (every hour).

Use only the special update rate: If this option is checked, the normal hourly digital content update rate will not be used, instead, the GreenmediaHD android devicealways use the Special Update Rate Entered in this settings, no matter if the device is booted. With this option, if the Special Update Rate for example is one minute, every change you do in the Web Server that creates or modifies the digital content in the Playlist, will be updated dynamically every minute in the GreenmediaHD android device.

Update Rate for Web Pages Content: In this option we enter a value of time, in hours, to periodically update the content of a web page that is shown on the play list. Many Web pages are dynamic, and change their content periodically, for example, weather related Web pages like Accuweather.com. However the initial load of the page takes some time and you notice the construction of the web page in the screen that

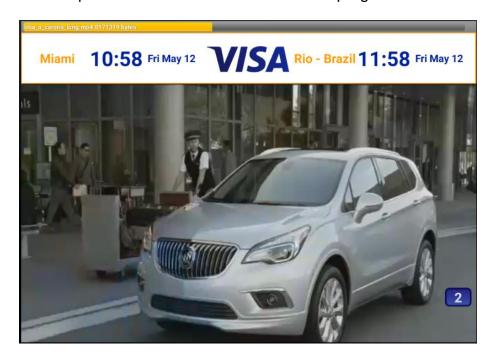
show this content in the terminal. To avoid this, a cache memory is activated to show the page immediately but the content of the page is always the same using the cache memory. In order to refresh the dynamical web page and update the cache memory, you define in this setting in how many hours the web page must be updated, generally this dynamical pages are updated by their web server in a very low frequencies.

Delay to start application: In this option we enter a value of time, in minutes, used to delay starting running the application automatically. By default the app starts automatically in 30 minutes, during this time the android device finishes all the background process needed at the start up. Some devices can delay a little more or less doing this background task and we can adjust a more proper delay

Adjust text size value for energy information: In this option we enter the value of the letter size that will be used in the texts of the led energy saving layouts and the city time layout. Some devices have a letter size greater than others.

Ticket Tape Speed:In this option we select the speed of the ticket tape messages that appear in the bottom of the screen of some templates. Depending on the android device where the GreenmediaHD is running, the speed of the ticket tape may vary and with this setting we can adjust the proper speed. The values selected are: Normal, Faster, and Turbo.

Show video download progress: If this option is checked, in the terminal screen appears a bar on top of screen to show video download progress as we show:



When all videos are downloaded this, bar shows as:

Waiting for new videos...

This setting may be used momentarily to see if all videos are downloaded properly and to know when the download process finish.

In the process of downloading all the digital content of the playlist to the android device, the images are downloaded first, and when all images are downloaded the Playlist is displayed in the terminal. The video files, which are much larger than the image files, are downloaded in background in order to not delay too much in showing the Playlist on the screen. If a video defined in the current sequence of the Playlist must be presented in the screen, and it has not been downloaded yet, the sequence jump to the next. This may cause the impression that the Playlist does not work properly, for this reason it may be useful to check the downloading process the first time we start the application. If a video or image file already exists in the local memory of the android device, it will not be downloaded again and the Playlist is shown faster, and also we can click on the Local Demo button if the digital content was downloaded.

Check if ticket tape message available every two minutes: If this option is checked, the ticket tape messages are downloaded every two minutes if they are available, although the rest of the digital content is downloaded with the Normal o Special Update Rate as we explain early.

Sometimes the ticket messages, which are generally used to show the latest news, need to be updated more frequently than the rest of the digital content. In this case this option is important.

Force Internal Memory:If this option is checked, the digital content downloaded from the GreenmediaHD Web Server is saved in the internal memory of the GreenmediaHD android device. Normally if the GreenmediaHD app detects that and external SD card is mounted, all the digital content is saved in that SD card. We must define in the settings the Directory of external memory first as we explain later.

•

Save tracer log: If this option is checked, a the tracer.log file is saved in the GreenmediaHD android device for debugging purposes only, so if there is bad functioning in the app, this file will help to the GreenMediaHD support team to correct the problem.

Force WIFI ON/OFF: If this option is checked, in every update of the digital content that the GreenmediaHD android device request to the Web Server, the android device forces the WIFI connection OFF and then ON if the WIFI is in OFF state in order to recover the WIFI signal. This guarantees that if the WIFI signal is momentary lost, it could be recovered.

Force WIFI OFF: If this option is checked, the GreenmediaHD android device forcesthe WIFI connection to OFF state. This is sometime useful in those cases when we use Ethernet wired LAN connection instead of WIFI connection. Some android device always prioritize WIFI over Ethernet and the Ethernet signal may be lost with a temporary disconnection and in order to recover the Ethernet connection we have to switch the WIFI connection to OFF state.

Reboot if connections remains in OFF (Rooted Devices): If this option is checked, the GreenmediaHD android device is rebooted if internet connection is OFF during 3 consecutive update periods from the Web Site. Rebooting the android device is a solution most of the time, when the connection is lost and we have a good internet connection. The automatic rebooting process is only possible in rooted android devices.

Reboot if video streaming fails:If this option is checked, the GreenmediaHD android device is rebooted if the video streaming showed in the Playlist fails in 3 consecutive intents. Rebooting the android device is a solution most of the time when we do not know the exact problem and there is not an apparent reason for the failure. The automatic rebooting process is only possible in rooted android devices.

Automatic booting (Rooted Devices): In this option we enter the hour of the day when we want that the GreenmediaHD android device makes and automatic reboot. It is a healthy practice for and android device running an app 24 hours every day with no stopping, to reboot and clear all the dirty memory used during the program execution. We can select an hour where the TV screen is less attended like midnight for example. The automatic rebooting process is only possible in rooted android devices.

Play List Design Web Site URL: In this option we enter the URL of the server where the digital content of the Playlist is stored. Normally this URL correspond to GreenmediaHD Web Site and you let this option in blank; however, special customers require to use private server and a new URL must be defined in order to download the digital content from the new server.

Energy Web Site URL: In this option we enter the URL of the server where the digital content of the Energy Graphics integrated to the Playlist is stored. Normally this URL correspond to GreenmediaHD Web Site and you let this option in blank; however, special customers require to use private server and a new URL must be defined in order to download the digital content from the new server.

GCOP Web Site URL: In this option we enter the URL of the server where the digital content of the Chiller Optimization System (GCOP) integrated to the Playlist is stored. Normally this URL correspond to GreenmediaHD Web Site and you let this option in blank; however, special customers require to use private server and a new URL must be defined in order to download the digital content from the new server.

Directory of external memory: In this option we enter the path to the external SD card memory in the android device. This path vary in every device, we must use some app in the device to know the real path, for example the ES File Explorer App. An example of the path could be: /storage/external storage/sdcard1

LAN Ethernet Forced IP (Rooted Devices):In this option we enter a static IP address that we want to set in the android device, if this option is not used we leave it in blank. This option may be useful to force a LAN Ethernet connection and disable a WIFI connectionbut it does not work properly in some rooted android device. The device must be rooted in order to use this option.

Unregister the Android:If this option is checked, we order the Web Server to unregister the android device in order to register a new device. You only can register the number of devices defined in the GreenmediaHD Web Server, and the registration is associated to the ID of the device, so if you get a new device to substitute the old one, you have to unregister the old one first in order to register the new one. Once you unregister the android device with this option, the register option will appear in the start screen as shown below:



You must check this option to register the android again.

With the registration the local Demo mode runs without any warning of registration notifications.

GMHD.7D Device Type: In this option we select the type of GreenmediaHD android device (GMHD.7D Device). Depending on the firmware and software version of the android device, the behavior of the device may vary, and with this type definition we can know what kind of device is associated with the terminal that is showing the Playlist. You can choose from three different values, Type 1, Type 2 and Type 3, each type indicates a group of devices with similar characteristics.

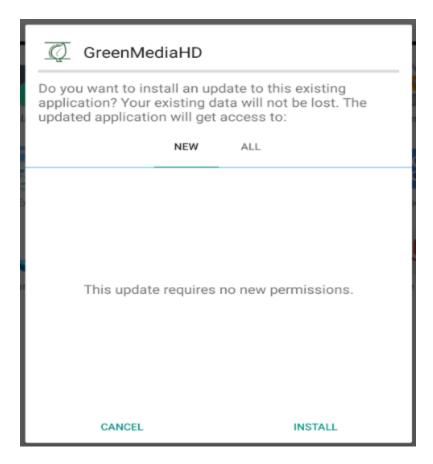
UPDATING THE GREENMEDIAHD ANDROID DEVICE

When a new GreenmediaHD app update is available, when you click on the Start Download button, the following windows is shown:



If you click on Cancel button or leave this dialog box unattended, the windows disappear and continues the digital content download.

If you click on the Upgrade button, a window showing the download of the new GreenmediaHD versions appears and once the app is downloaded, the following windows appear:



This windows may vary depending of android version.

Click on the Install button in order to install the new version and when the installation finish click on the Done button and start the GreenmediaHD app.

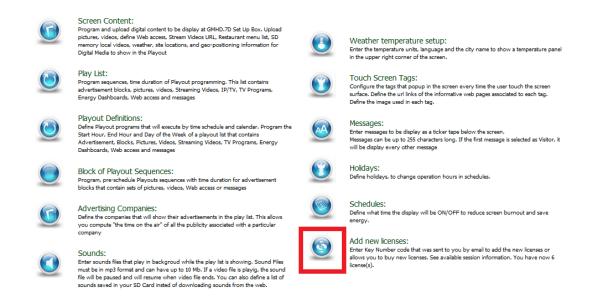
Notice that the installation of a new app version is an attending process for security reason, so some person must be present during installation.

REMOTE MONITORING OF TERMINALS:

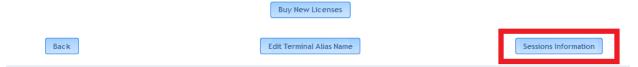
Once the terminals are showing the Playlist, we can monitor the functionality from the GreenmediaHD Web Server.

Show the status of the all terminals we have to click in the Add New Licenses icon of the main menu as shown:

CONFIGURATION MENU



And in the following page we click on Session Information button:



The status of all the terminal will be shown as follows:

	(C			Green Media HD User: ADM - VisaManila							
				AV	'AILABLE SE	SSIONS INFOR	MATION				
				A	mount of c	onnected stat	ions: 36				
ssion ID	Version	Device Type	Trm No.	Alias	Seg. No.	Status	IP Address	MAC Address	Local Device Time	Boot Hour	H.Runnir
57874	8.46	2	1	Control Center Stats WFM	308	Connected	192.168.1.51	b0:11:22:33:45:06	05-15-2017_21:40	1	10:15:5
30503	8.44	2	2	Control Center Stats WFM	305	Connected	192.168.1.52	b0:11:22:33:45:5b	05-15-2017_21:39	1	10:10:4
13376	8.42	1	3	Local TV Station WFM	308	Connected	192.168.1.53	ee:e3:bc:3c:29:85	05-15-2017_21:33	1	10:15:3
84605	8.44	2	4	VisaTV CNN WFM	1232	Connected	192.168.1.54	b0:11:22:33:46:13	05-15-2017_21:31	1	10:16:1
37480	8.44	1	5	Weather Information WFM	303	Connected	192.168.1.55	5a:1b:dd:ce:9d:c4	05-15-2017_21:35	1	10:5:30
27538	8.44	2	6	14th Floor South Zone 3 GCAS	308	Connected	192.168.1.56	b0:11:22:33:45:07	05-15-2017_21:25	1	10:15:5
64067	8.44	1	7	14th Floor South Zone 3 GCAS	1496	Connected	192.168.1.57	5a:c4:0e:06:7b:40	05-15-2017_21:10	1	10:15:4
89056	8.44	1	8	14th Floor South Zone 3 GCAS	308	Connected	192.168.1.58	de:06:fe:f2:15:91	05-15-2017_21:09	1	10:15:2
77014	8.44	1	9	14th Floor South Zone 3 GCAS	1512	Connected	192.168.1.59	c6:c8:20:7f:25:26	05-15-2017_21:12	1	10:19:4
58350	8.44	1	10	14th Floor South Zone 3 GCAS	308	Connected	192.168.1.60	b6:92:32:53:7f:8f	05-15-2017_21:08	1	10:15:2
87888	8.44	1	11	14th Floor South Zone 2 GCAS	188	Connected	192.168.1.61	92:f6:5a:3b:8e:bd	05-15-2017_21:12	1	6:15:40
31612	8.44	1	12	14th Floor South Zone 2 GCAS	1512	Connected	192.168.1.62	b2:58:24:79:d8:46	05-15-2017_21:06	1	10:19:5
93882	8.44	1	13	14th Floor South Zone 2 GCAS	308	Connected	192.168.1.63	2e:37:74:75:81:74	05-15-2017_21:04	1	10:15:24
52480	8.44	1	14	14th Floor South Zone 2 GCAS	1100	Connected	192.168.1.64	fa:a3:48:2e:7b:72	05-15-2017_21:05	1	10:15:4
56901	8.44	1	15	14th Floor South Zone 2 GCAS	308	Connected	192.168.1.65	6e:98:d6:c5:0c:7a	05-15-2017_21:06	1	10:15:2
56353 94484	8.44 8.44	1	16 17	Main Lobby 14th Floor 14 Floor North Zone 1 DPS	17176 278	Connected	192.168.1.66 192.168.1.67	42:c7:7d:26:7f:55 d2:0d:76:36:a3:4b	05-15-2017_21:17	1	9:15:36
94484 52768	8.44	1	1/	14 Floor North Zone 1 DPS 14 Floor North Zone 1 DPS	1359	Connected Connected	192.168.1.67	46:f9:4d:bb:6e:48	05-15-2017_20:59	1	9:15:36
52768 89294	8.44	1	18	14 Floor North Zone 1 DPS	300	Connected	192.168.1.68	02:72:bf:02:5a:76	05-15-2017_20:58 05-15-2017_21:36	1	10:0:37
88210	8.44	1	20	14 Floor North Zone 1 DPS	2404	Connected	192.168.1.69	72:a0:03:d9:3c:c1	05-15-2017_21:38	1	10:0:3/
	0.11	•	20	THE SOL HOLD ED FOR	2.04	Comfetted	152,100,11,70	, Elabiosidiscici	05 15 2017_21130	•	10.1.0

Each column means the following:

Session ID: This number is an identifier of the open session of the terminal and is for use of GreenMediaHD development team.

Version: This number is the actual GreenmediaHD app version that is running in the android device.

Device Type: This number, from 1 to 3, tell us the type of android device we are using. Remember that this parameter is entered in the GreenmediaHD app settings that we explain early. Some devices offer some features that others do not have, and a different behavior, by this type we could know what kind of android device we are using.

Trm. No.: This number correspond to the terminal unit we are checking the information. **Alias:** This column contain the name given to the terminal to make easy identify the purpose or location of the terminal. This alias name associated to the terminal number is given in the GreenmediaHD Web site as we explain early.

Seq No. : This number is increased every time that the sequence shown in the terminal changes, so if this number changes that means that the sequences are passing and the app is running normally, but if this number remains static that probable means that the app is frozen.

Besides the GreenmediaHD app, there is another app that is installed in the same device to check if the GreenmediaHD app is running. This app is GM_Watchdog.apk. This app detects if the GreenmediaHD app is stopped for more than 3 minutes and then make a re-boot of the android device in order to recover the GreenmediaHD app, that starts automatically when the device is re-booted as we explain in the settings of the app.

Status: This column shows if the associated terminal is connected or disconnected. In the upper part of this page, we can find the Amount of connected stations, for this

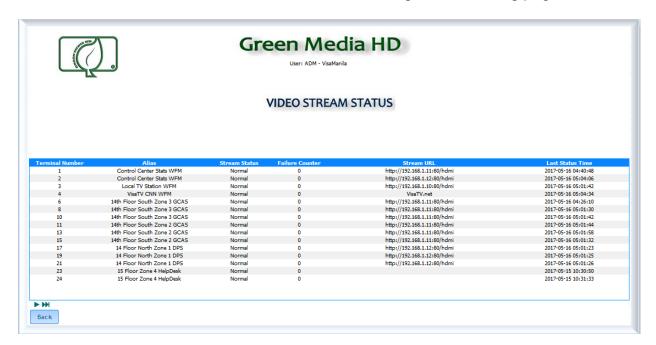
example it is 36. We can see then, which station or terminal is connected or not. If the text "Connected" has a blue background color, as shown in this example, it means that the device for that terminal is registered from the app. We explained early how to make the registration process from the GreenmediaHD app.

IP Address: This column shows the IP address of the terminal (GreenmediaHD android device) in the sub-network. It is useful to locate the device in the network. Mac Address: This column shows the MAC address of the terminal (GreenmediaHD android device). Sometimes this address is needed for security purposes in order to allow access to the device to an specific network. This address is also used in the process of registration of the GreenmediaHD device.

Local Device Time: This column shows the date and time value of last digital content update that the GreenmediaHD app has carried out. These values are local time in the zone where the terminal is located. With this value we can see if the terminal is being properly updated and if the clock of the android device shows the actual date and time. **Boot Hour:** This column shows the value of the hour of the day when the android device would reboot. Only rooted device can has a soft-reboot. As mentioned early in the settings adjustment of the GreenmediaHD app, it is a good practice to reboot a device that is running the App 24 hours the 7 days of the week in order to clear all used memory and resources used by the app.

H.Running: This column shows the value of the number of hours and minutes that the app has been running since last reboot. This value is updated every time the app updates the digital content of the Playlist from the GreenmediaHD Web Server

Now if we click on the Video Stream Status button, we get the following page:



Each column means the following:

Terminal. Number: This number correspond to the terminal unit we are checking the information.

Alias: This column shows the name given to the terminal to make easy identify the purpose or location of the terminal. This alias name associated to the terminal number is given in the GreenmediaHD Web site as we explain early.

Stream Status: This column shows if the video streaming is displaying normally in the terminal screen or if it has a failure. The possible values are Normal, if no problem is detected, and Failure if there is a problem trying to play the video streaming.

Failure Counter: This column shows the number of failures trying to play the video streaming. This counter is reset in the boot hour defined for the terminal in the app settings explained early. It is useful to know if there are problems related with video streaming such as problems with encoders.

Stream URL: This column shows the name of the URL of the video streaming in order to identify the video streaming that could has a problem.

Last Status Time: This column shows the values of date and time when the status of the video stream was updated.