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# **Remote Enhanced Active Control for Hospitality (REACH Server)**

## **USER Manual**

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# USER'S MANUAL

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## 1. GENERAL INFORMATION

### 1.1 System Overview

The 'Remote Enhanced Active Control for Hospitality (REACH Server)' application is a Remote Control Update system for the better and cost effective service to Hospitality industries. This will allow user/operator to configure the guest TV with RF distributing system. Application will help user to set and configure the guest room TV Set parameter. The created setting file will be used by SRCUS for configuration of guest TV.

Application is intended to create or modify clone files for user and to update guest TV with these clone files by transmitting them with RF. Application provides a user interface similar in appearance to TV's parameter settings where user can update factory menu settings and can modify or tune channels to update guest TVs.

To effectively complete and support the requirements of the "Hospitality" Industry, a management system is needed that will allow the operator to have control of the TV sets in the guest room without requiring a potential disruptive or costly visit to each room

- Channel Configuration Made Easy All from the Head End FMA System.
- Will configure and deliver the channel line-up and SW upgrade to the guest room terminals via the hotel's coaxial distribution.

This application is an S/W utility to configure user configuration parameter defined below:

- Hotel Factory Menu (Standalone Menu/Interactive Menu)
- Channel map

It also supports generation of TS stream embedding clone file information and control of the modulator which is used for broadcast of TS stream.

Acrobat reader has to be installed in the machine to read User Manual.

### 1.2 Purpose of the Document

This document is prepared to facilitate and guide the user how to create/modify clone files, to update interactive/standalone menu settings, to configure channel map and to create TS stream using REACH Server. Screens-wise explanations are provided here in this document in the process flow of the application.

## 2. REACH SERVER DEVICE INSTALLATION

### 2.1 Radio Frequency Interference Statement

**NOTE:** This equipment has been tested and found to comply with the limits for a Class-A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, it will be required to correct the interference at own expense.

This digital apparatus does not exceed the Class-A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications

The present digital apparel does not emit radio noise exceeding the limits for a Class-A digital devices prescribed in the Radio Interference Regulations edict by the Ministry of Communications of Canada.

**Warning:** Only devices certified to comply with the Class-A limits pursuant to Subpart A of the FCC Rules may be attached to this equipment. Operation with non-certified devices is likely to result in interference to radio and TV reception. Changes or modifications made to this equipment, not expressly approved by the FCC could void the user's authority to operate the equipment.

To maintain compliance with FCC radio frequency emission limits, shielded cables are required to connect equipment to other Class A certified devices and the use of quad shield, RG-6/U type CATV cable is required for connection to the CATV system. Any changes or modifications may void the user's authority to operate this equipment.

### 2.2 Introduction

This guide explains how to install a REACH Server in an existing cable network. User should be familiar with cable TV systems. Some of the operations described by this guide could disrupt the entire cable TV system if performed improperly.

You must have the permission and authorization of the cable TV system operator before you begin the installation.

### 2.3 Installation Tools and Verification Equipments

The following equipment is required during initial system set up and installation:

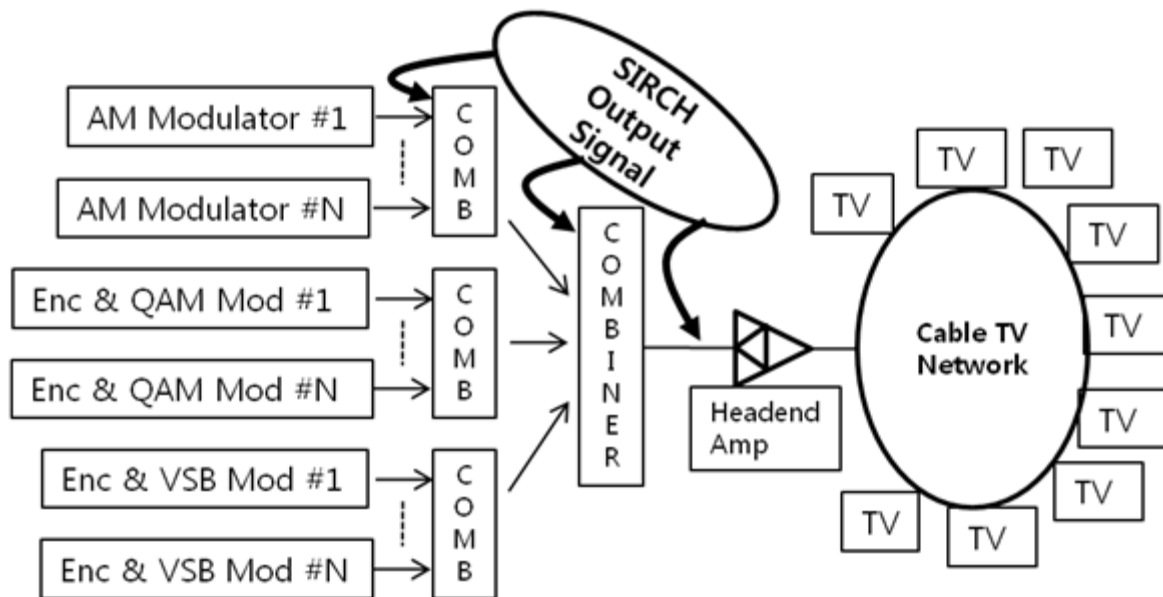
- Flash light
- Power extension cords/strips
- Multimeter (Ohm meter/volt meter)
- 75 Ohm Attenuators (various values, i.e., 3, 6, 10 dB)
- Splitters, directional couplers (single port, multi-port, various values) Coaxial cables (various lengths)
- Spectrum analyzer or power meter and tone generator Instruments such as the spectrum analyzer, power meter and tone generator may be used to create and measure signals, signal levels and operating frequencies.

## 2.4 Installation Process

1. Mount REACH Server in rack and connect keyboard/mouse/monitor. Connect AC power to monitor and REACH Server.
2. Power on monitor and REACH Server, and wait until boot up.
3. Select REACH Server channel or frequency. It is recommended to either stay with default of 87 (TV default), or select a lower channel to avoid the greater signal attenuation which occurs at higher frequencies (Selecting a channel other than 87 will require manually resetting the TV's REACH Server channel to match with TV setting).
4. Set the REACH Server to playback a video stream for system testing and balancing.
5. Measure the levels of the adjacent channels and match the REACH Server output level to those, but not lower than the signal level required to present -5 dBmV in every room, using RF attenuator pads. (As previously stated, an amplifier could be required depending on system configuration.)
6. Use an open input port, if available to inject the REACH Server signal into the distribution system, (use an external combiner if no input port available) and double-check that REACH Server signal level is matched well with adjacent channels, but is not less than -5 dBmV at every room.

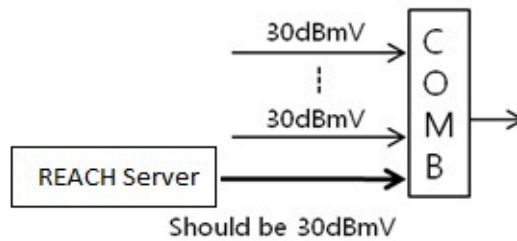
## 2.5 Installation Example

REACH Server output signal can be combined with other RF signals using RF combiner or directional coupler. REACH Server output power can be controlled from 29dBmV to 56dBmV. And, the output power must match with other combined RF signals.



## Case #1.

In case the output power of REACH Server input into combiner, the output power will be same with other signal power input to the Combiner



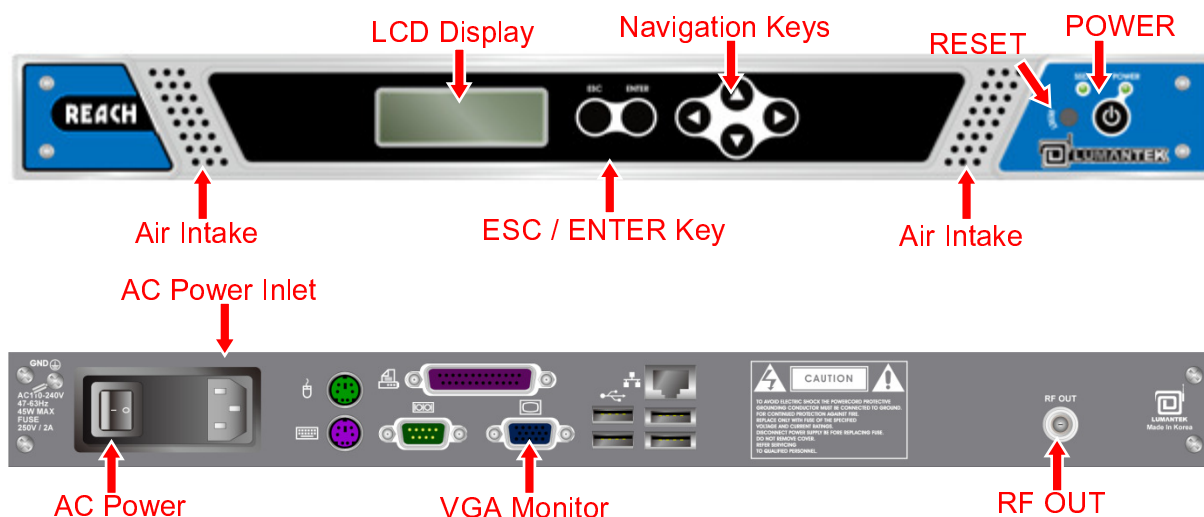
## Case #2.

In case there is no room for combiner input port, a Directional Coupler may be used.  
(for example : tap Val 16dB, insertion loss 1dB DC)



## 2.6 Front Panel Operation

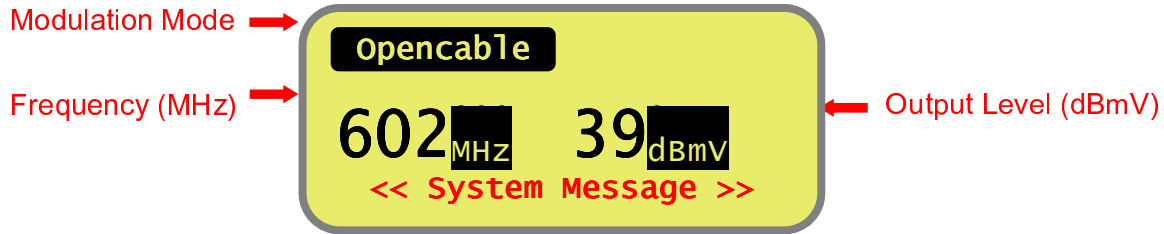
### Front and rear view



POWER Button: System power on/off switch  
 RESET Button: Reset the system immediately  
 ENTER Key: Menu display or select item  
 ESC (Escape) Key: Escape from sub/main menu and cancel current input.

Navigation Keys: Up/Down/Right/Left buttons, use for selecting a submenu or a decimal.

### Status Display



Modulation Mode: Modulation mode display

Frequency: RF output frequency display in MHz unit

Level: RF output power level display in dBmV unit

System Message: Current operation status or error messages

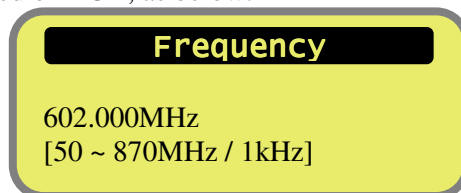
### Frequency Control

Frequency settings are as follows.

Push [Enter] button from front panel. Main menu will be displayed on LCD, as below.

- > 1. Frequency
- > 2. Level
- > 3. IPv4 Setting
- > 4. Version

Select the "1. Frequency" menu with up/down navigation keys and push [Enter] button, the Frequency menu will be displayed on LCD, as below.



Set the desired frequency using the navigation keys.

Use up/down navigation keys to change the frequency, left/right navigation keys to move the unit.

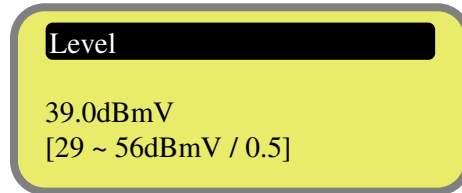
### Level Control

RF output level settings are as follows.

Push [Enter] button from front panel. Main menu will be displayed on LCD, as below.

- > 1. Frequency
- > 2. Level
- > 3. IPv4 Setting
- > 4. Version

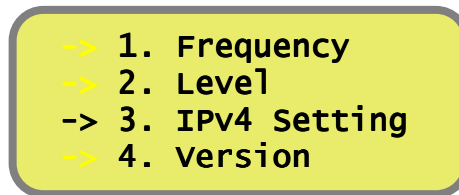
Select the “2. Level” menu with up/down navigation keys and push [Enter] button, the Level menu will be displayed on LCD, as below.



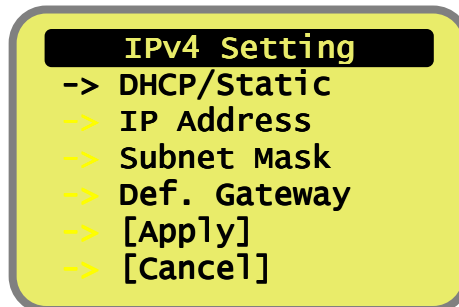
Set the desired level using the navigation keys.  
Use up/down navigation keys to change the Level in 0.5dB step.

### IPv4 Setting

IPv4 settings are as follows.  
Push [Enter] button from front panel. Main menu will be displayed on LCD, as below.



Select the “3. IPv4 Setting” menu with up/down navigation keys and push [Enter] button, the IPv4 Setting menu will be displayed on LCD, as below.



At first, select ‘DHCP’ or ‘Static’ mode through the “DHCP/Static” submenu. If you select ‘Static’ mode you may need to change the “IP Address”, “Subnet mask”, and “Def. Gate way” settings. When you finish inputting parameters, select [Apply] and push [Enter] button to make settings active, or select [Cancel] and push [Enter] button to cancel the current inputs.

## 2.7 Connecting to a REACH Server from a remote terminal

User can control and manage a REACH Server from a local terminal (keyboard, mouse and monitor) or from a remote host computer (terminal) with Windows Remote Desktop application.



To connect to a REACH Server from a remote host computer, you need to know below information and default settings of REACH Server

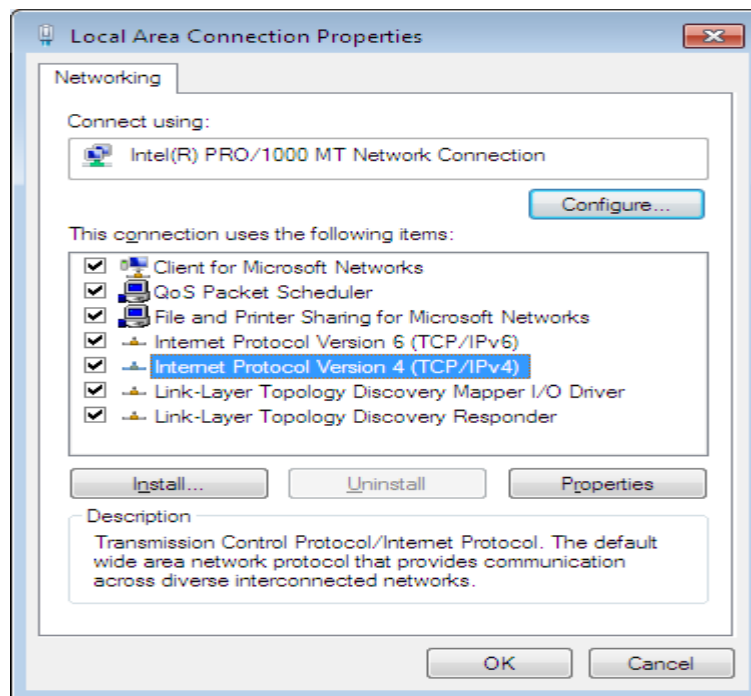
Settings	Default
IP Address	Obtain an IP address automatically (DHCP)
Computer name	REACH Server
User name	REACH Server_user
Password	admin4567

If user need, user can change above default settings with Windows OS control panel on a REACH Server.

## 2.8 TCP/IP Setting of your host computer (Windows 7)

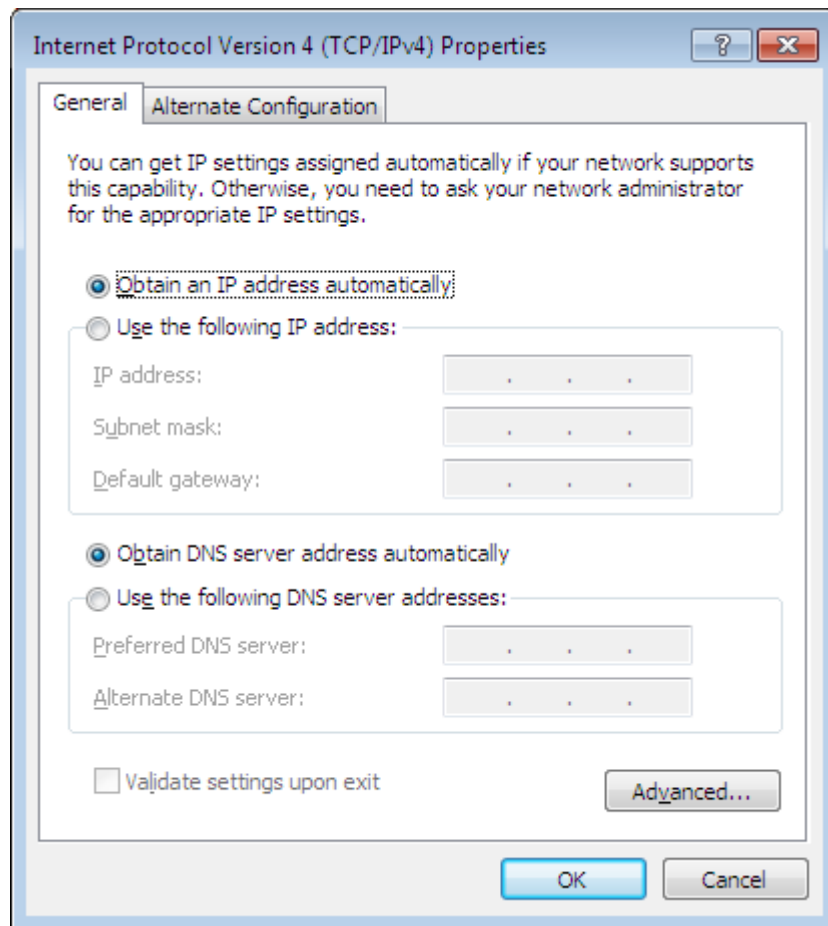
To connect to the host computer, which is the client (or remote) computer to a REACH Server, you need to set up your host computer's TCP/IP setting to be in a same subnet with the REACH Server. Refer to the below steps for Windows 7

1. Open Network Connections by clicking the **Start** button, and then click **Control Panel**. In the search box, type **adapter**, and then, under Network and Sharing Center, click **View network connections**.
2. Right-click the connection that you want to change, and then click **Properties**. If prompted for an administrator password or confirmation, type the password or provide confirmation.
3. Click the **Networking** tab. Under **this connection use the following items**, click either **Internet Protocol Version 4 (TCP/IPv4)** or **Internet Protocol Version 6 (TCP/IPv6)**, and then click **Properties**.





4. To specify IPv4 IP address settings, do one of the following:
  - To get IP settings automatically using DHCP, click **Obtain an IP address**

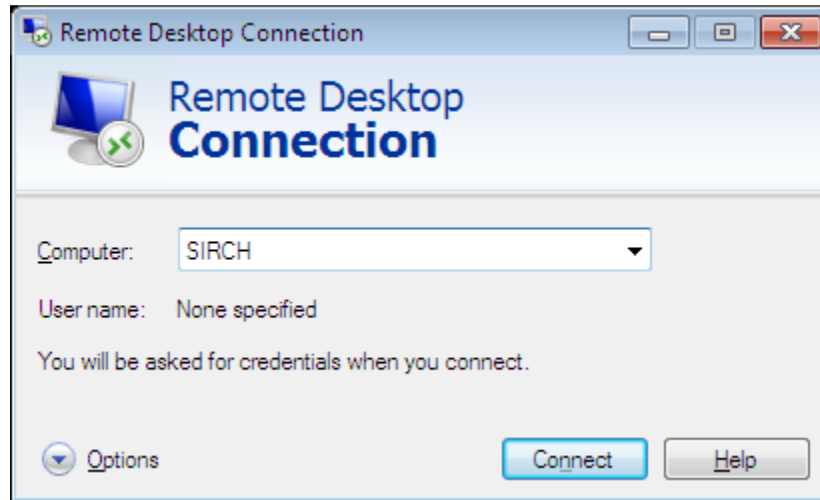
- **automatically**, and then click **OK**.
  - To specify an IP address, click **Use the following IP address**, and then, in the **IP address**, **Subnet mask**, and **Default gateway** boxes, type the IP address settings.
5. To specify IPv6 IP address settings, do one of the following:
- A. To get IP settings automatically using DHCP, click **Obtain an IPv6 address automatically**, and then click **OK**.
  - B. To specify an IP address, click **Use the following IPv6 address**, and then, in the **IPv6 address**, **Subnet prefix length**, and **Default gateway** boxes, type the IP address settings.
6. To specify DNS server address settings, do one of the following:
- To get a DNS server address automatically using DHCP, click **Obtain DNS server address automatically**, and then click **OK**.
  - To specify a DNS server address, click **Use the following DNS server addresses**, and then, in the **Preferred DNS server** and **Alternate DNS server** boxes, type the addresses of the primary and secondary DNS servers.



TCP/IP Setting of Windows 7: For the other OS, please refer to the OS manual.

## 2.9 Remote Desktop Connection (Windows 7)

1. Open Remote Desktop Connection by clicking the **Start** button . In the search box, type **Remote Desktop Connection**, and then, in the list of results, click **Remote Desktop Connection**. Or click the **Start** button , click **All Programs**, and then click **Accessories**, click **Remote Desktop Connection**.

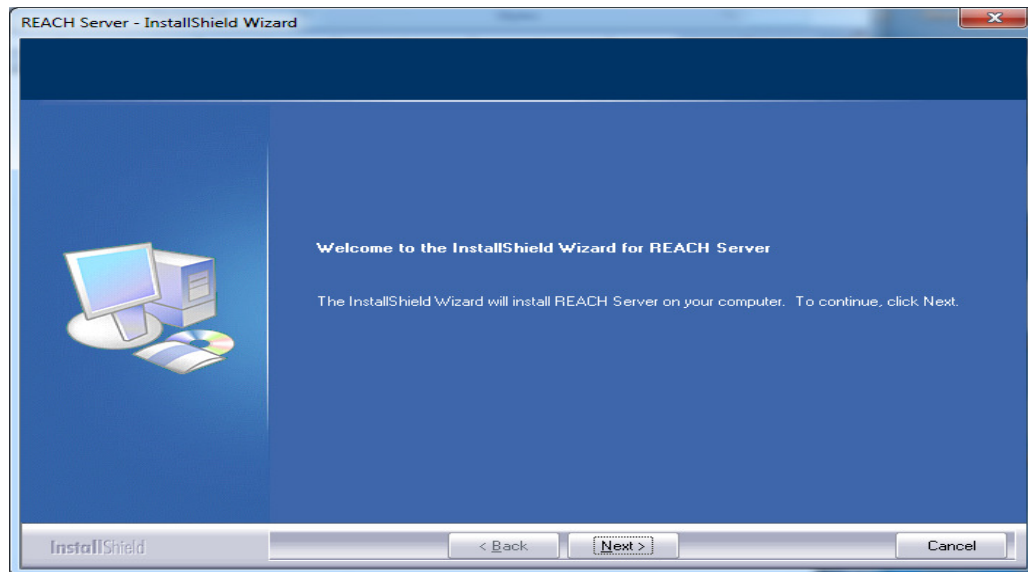


2. In the **Computer** box, type the name of the REACH Server that you want to connect to, and then click **Connect**. (User can also type the IP address instead of the computer name.)

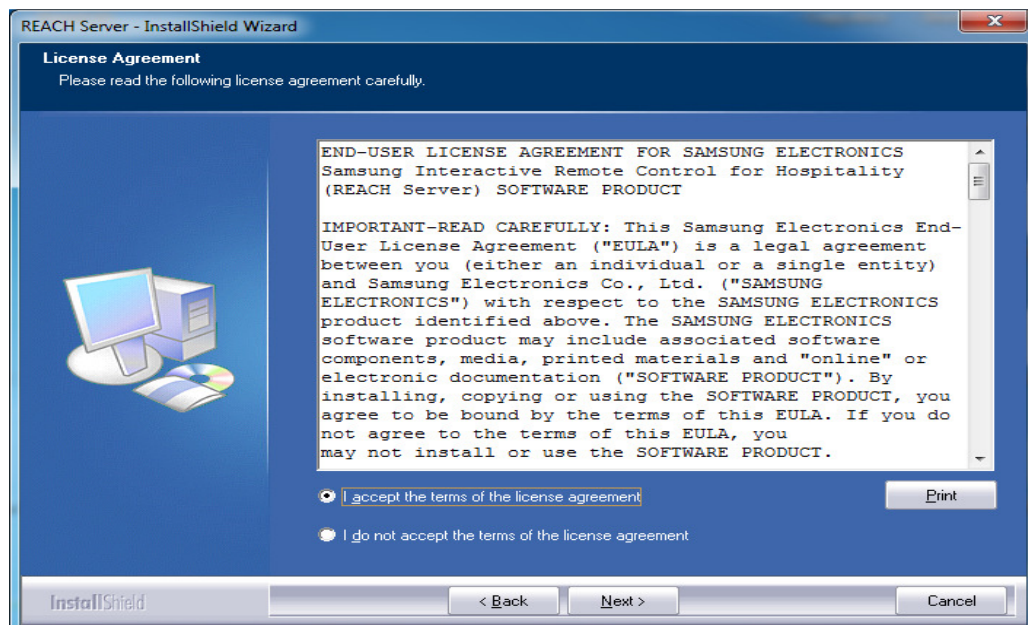
### 3. GETTING STARTED

#### 3.1 Installation instructions for Windows 7

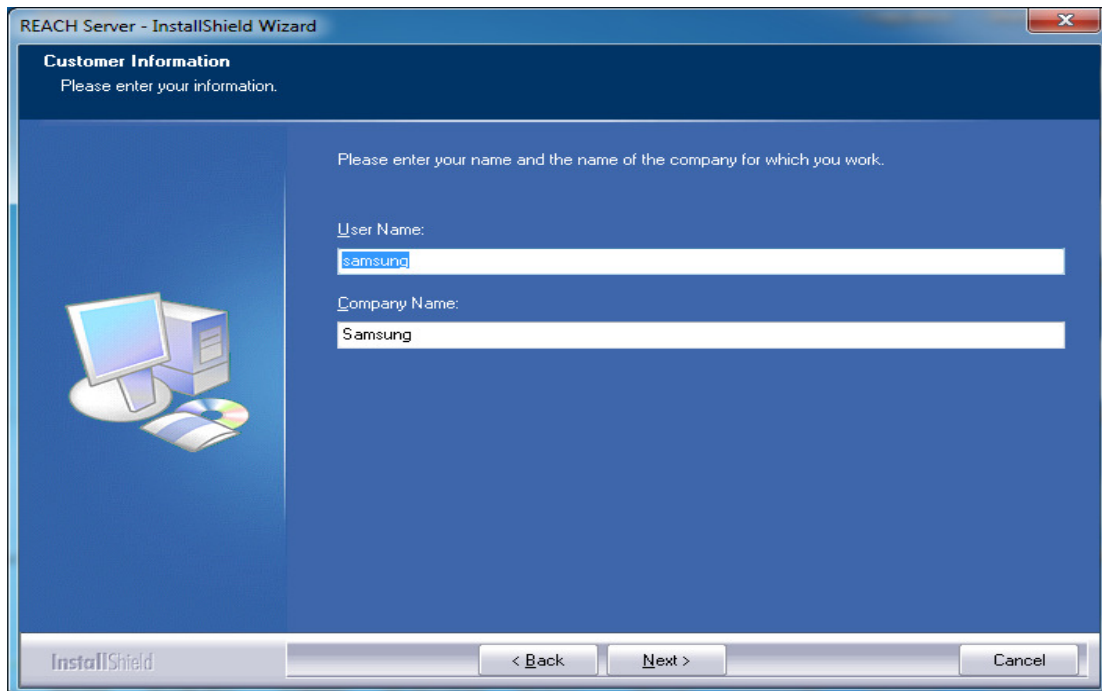
1. To install Remote Enhanced Active Control for Hospitality (REACH Server), uninstall the old Version of PC Tool and then install new version.
2. Before Installing setup user has to install Prerequisites.
3. To install Remote Enhanced Active Control for Hospitality (REACH Server), locate and open the setup directory of REACH Server and double-click on the file “setup.exe”.



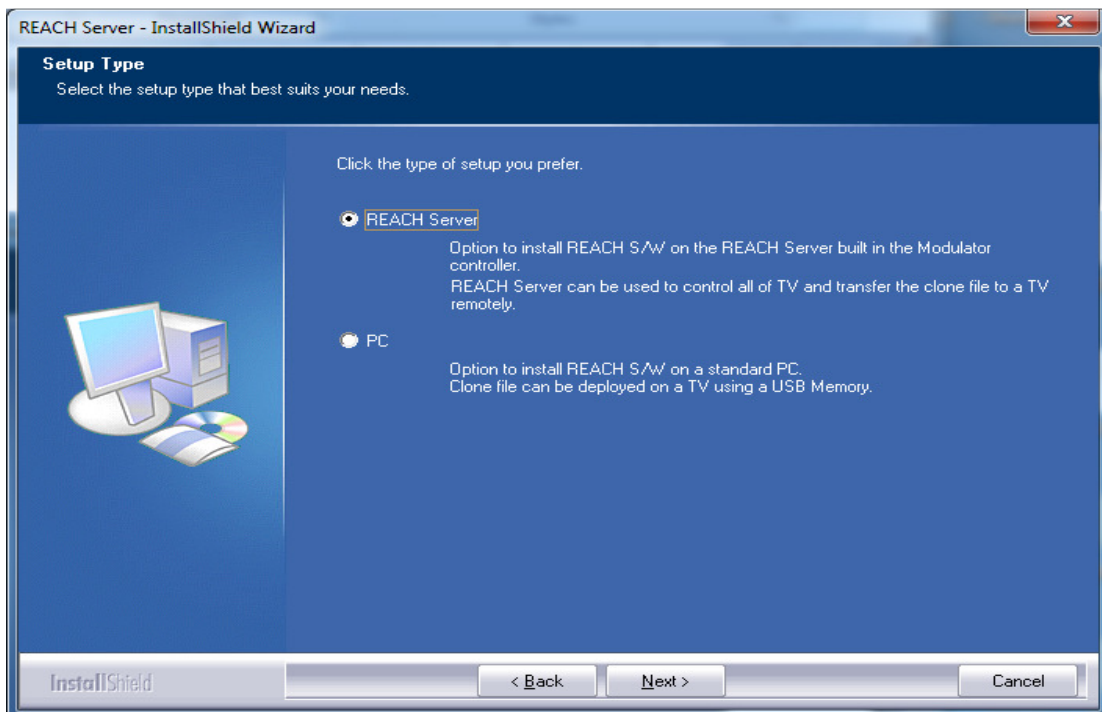
4. Click on Next Button to proceed for Installation wizard of REACH Server.



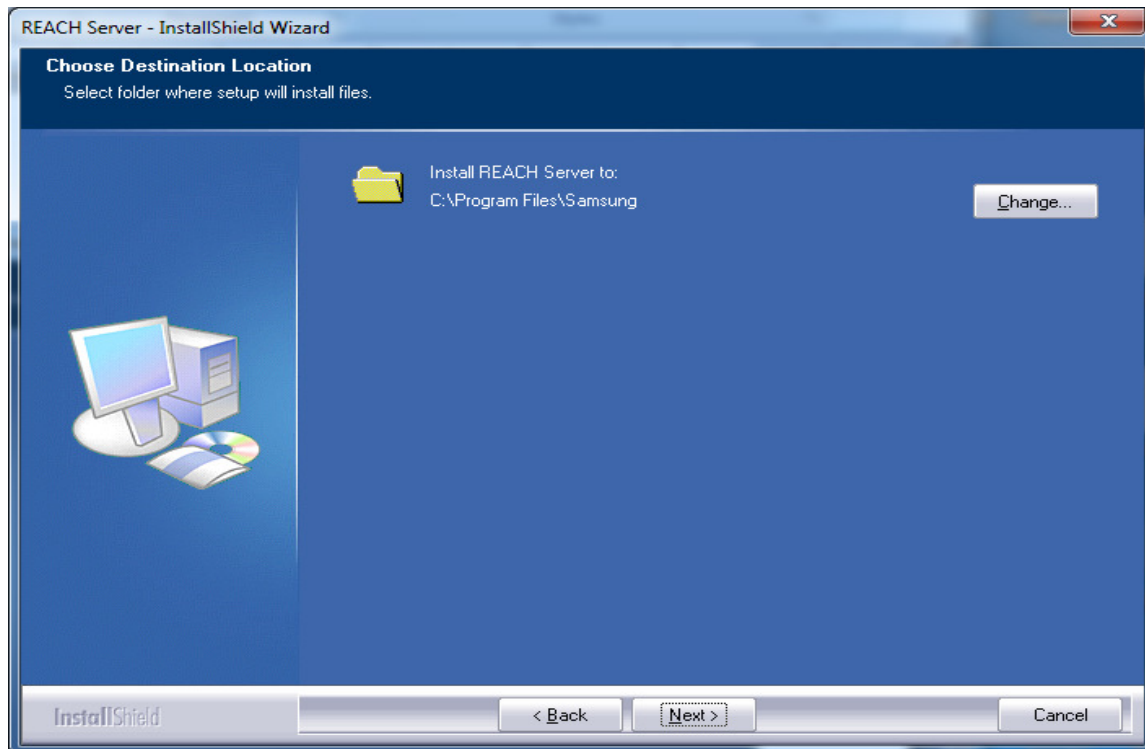
5. Read the license agreement carefully and select “I accept the terms in the license agreement” and click on Next button.



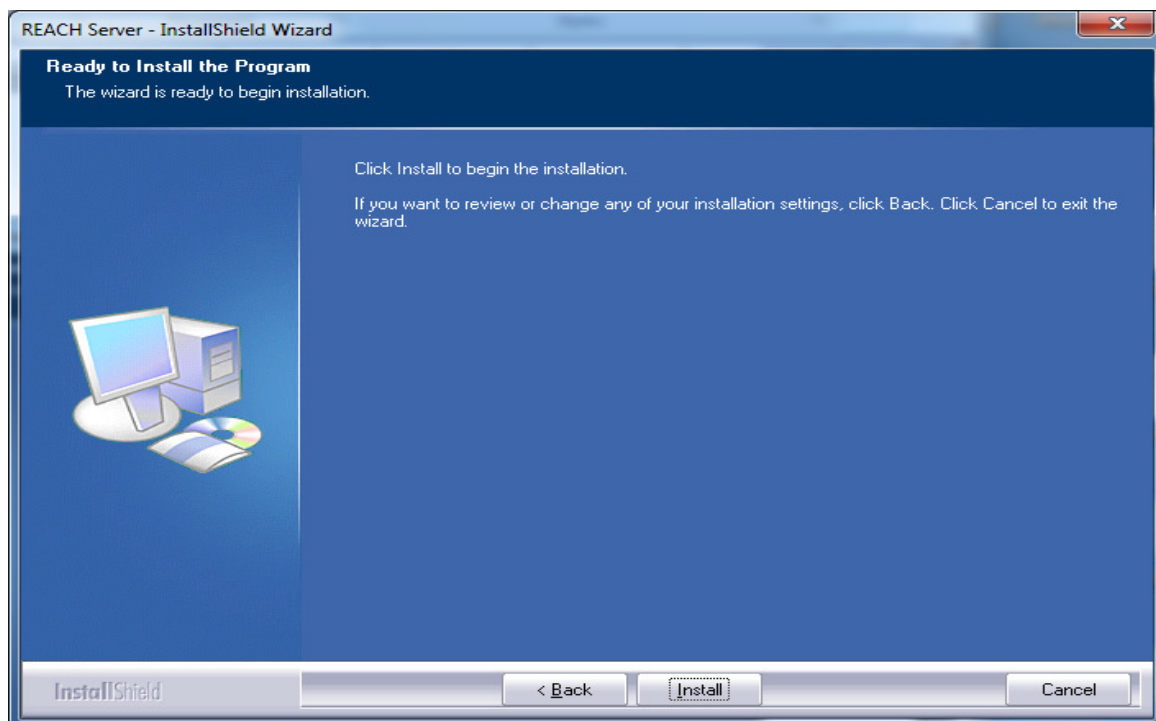
6. Click on “Next” button to proceed.



7. Reach Server installation will work on Modulator, and PC installation will work on PC. Select Setup Type and click on next button.

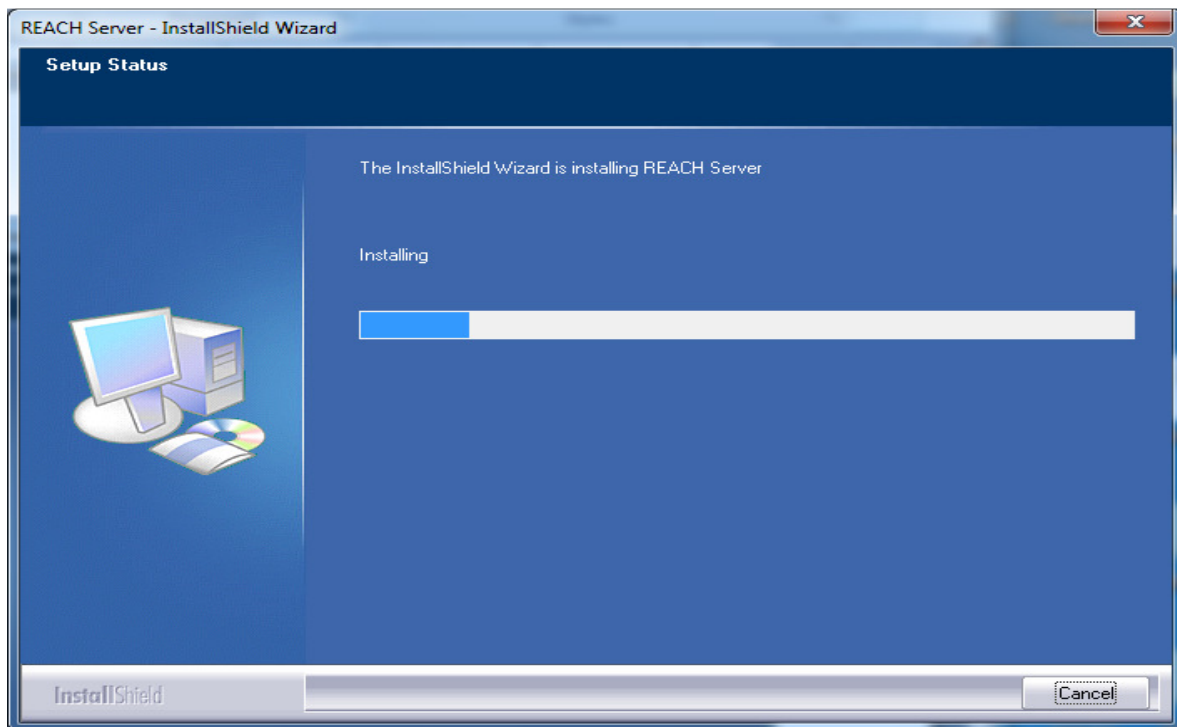


8. Click Next to install the application files to the default folder, or click Change to install to a different folder.

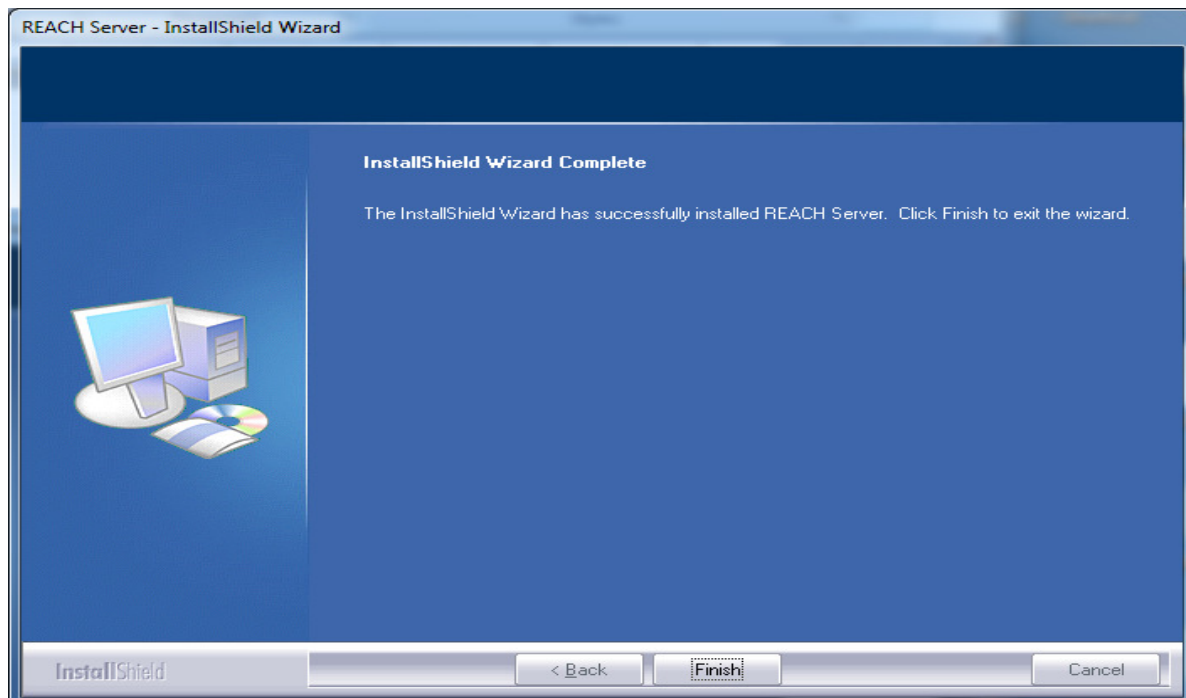


9. The wizard is ready to begin installation. Click on Install to begin the installation.



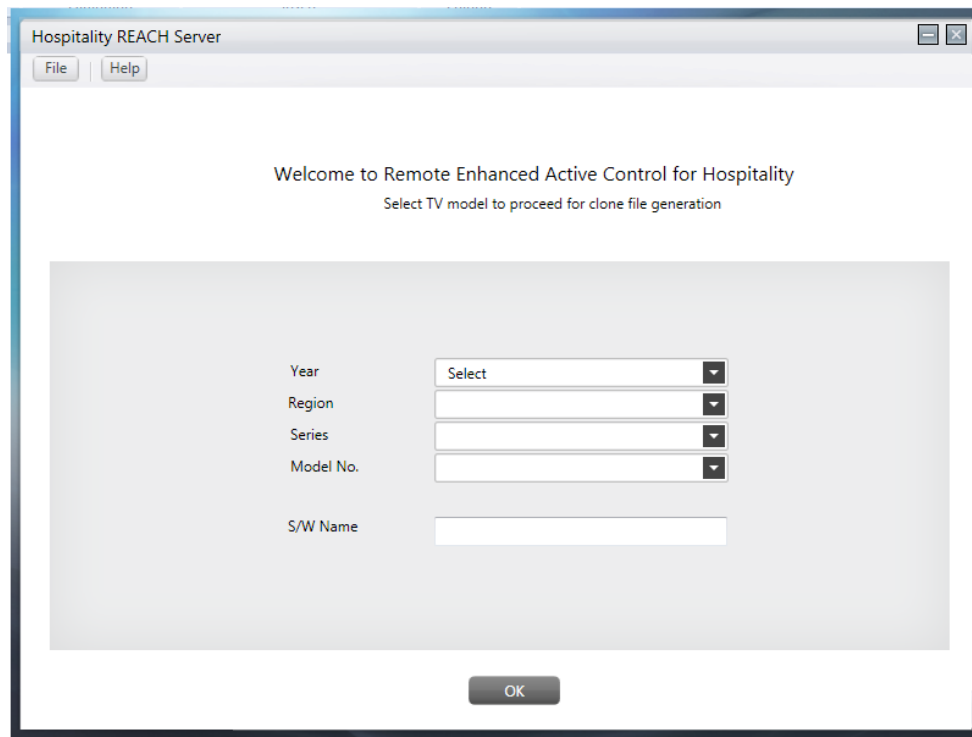


10. This Screen will update with the installation progress.

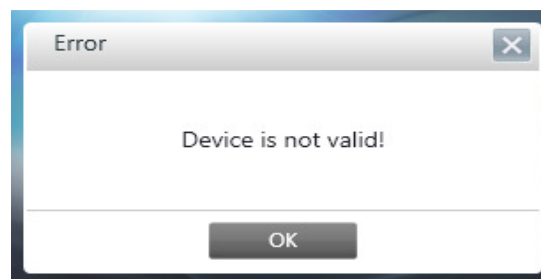


11. After installation process completes, Click Finish to exit the wizard. After clicking on finish a desktop icon is made with name “S-LYNK REACH” for launching application and also it is added in your Start Menu->Programs

### 3.2 Launching/Starting S-LYNK REACH Application for PC/REACH Server



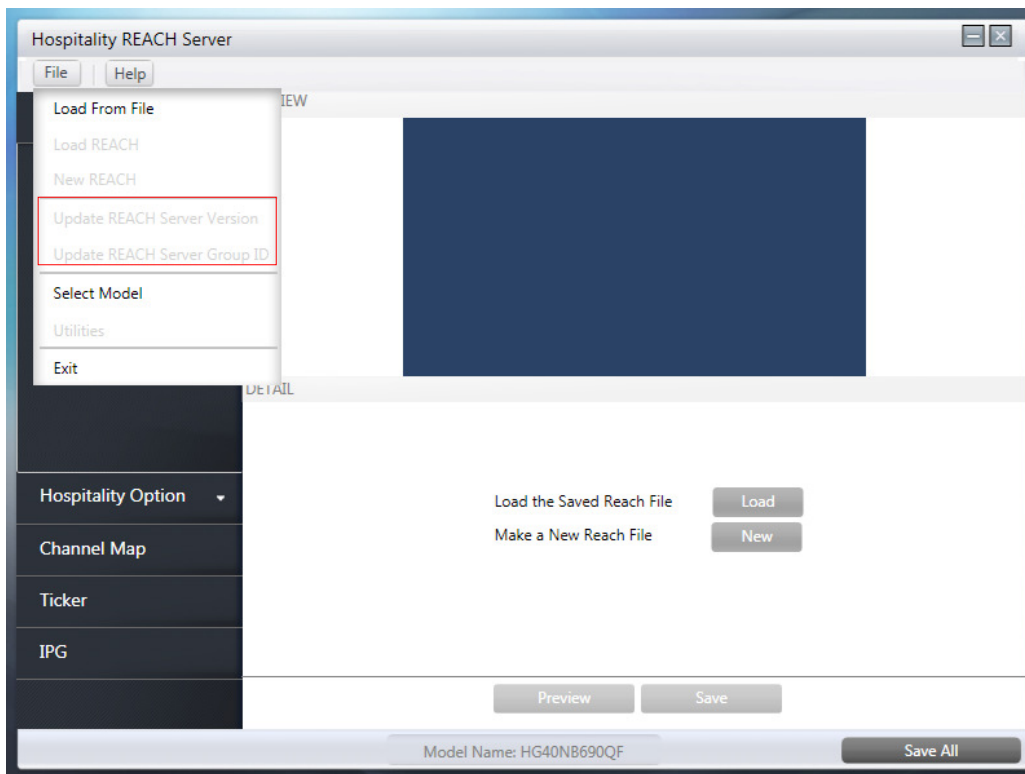
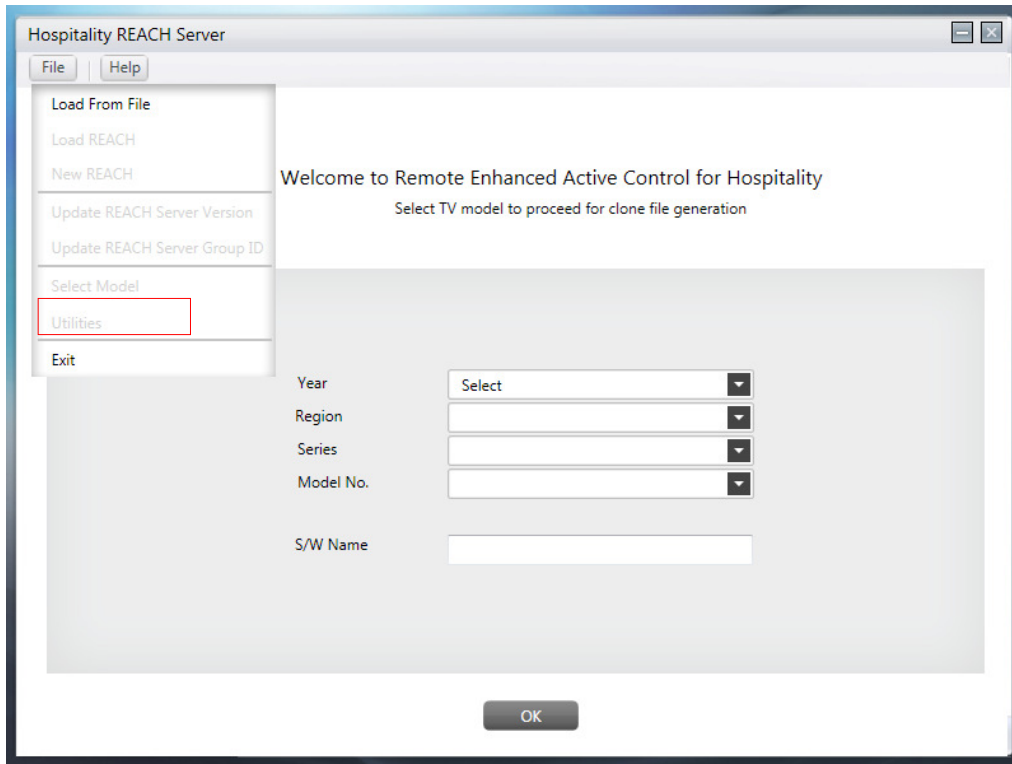
1. Reach Server application can be launched in two different modes in PC and in Modulator during installation:
  - (a) PC – to install application setup on PC
    - If REACHSERVER mode is installed on PC, on double click of shortcut icon, it will show the following message:

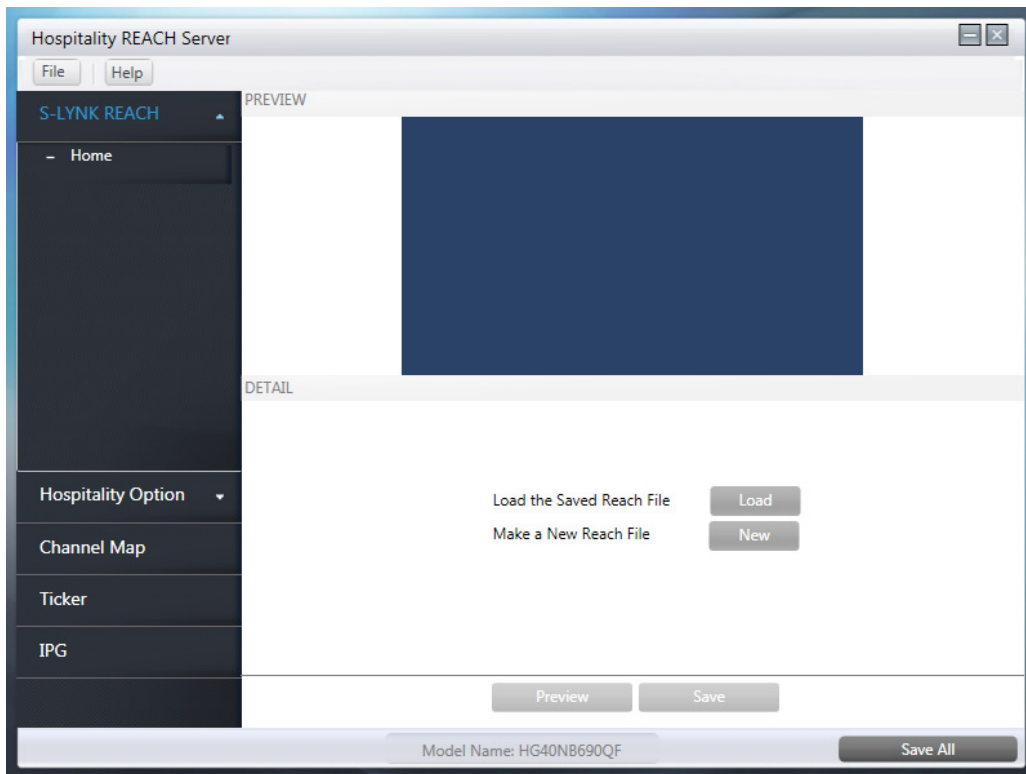
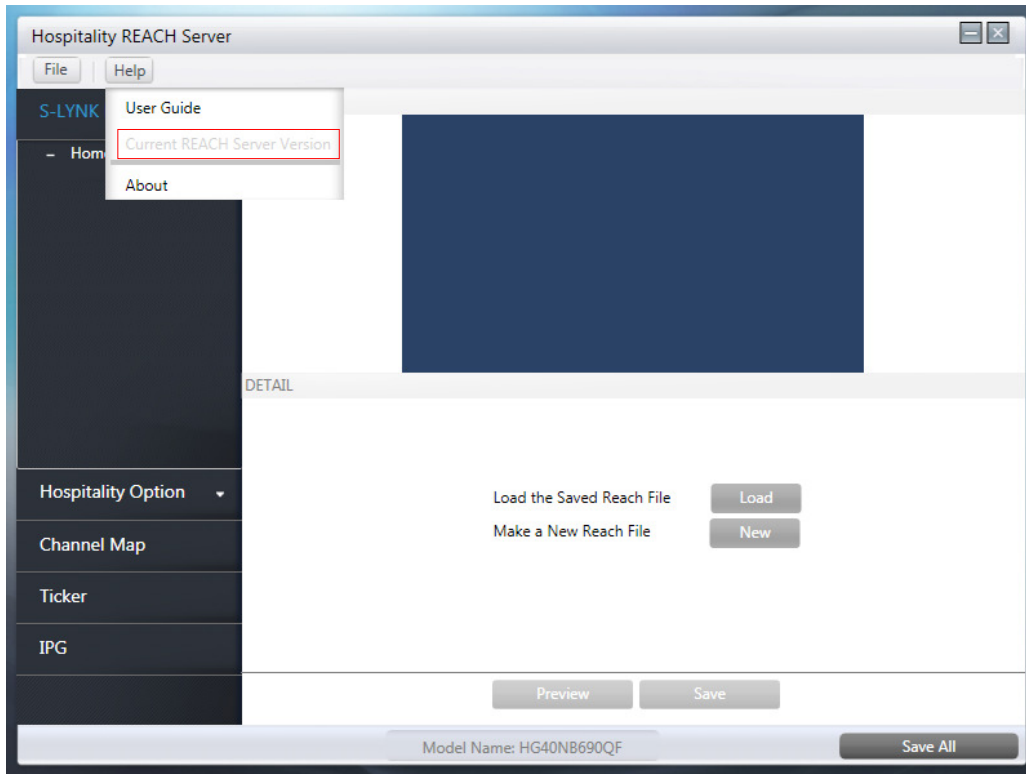


- “Utility” Menu is disabled
- “Update Reach Server Version” menu is disabled
- “Update Reach Server Group ID” menu is disabled
- “Current Reach Server Version” menu is disabled
- Generate functionality does not exist
- Modulator Controller bar does not exist

Please refer the screen shot as given below:



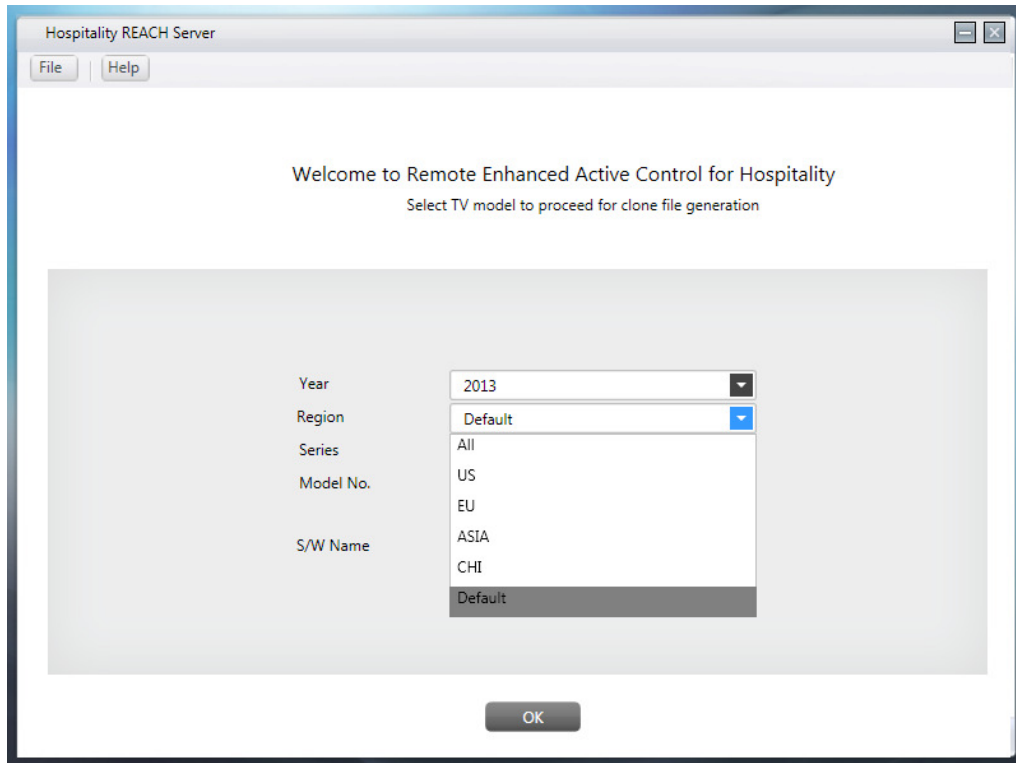


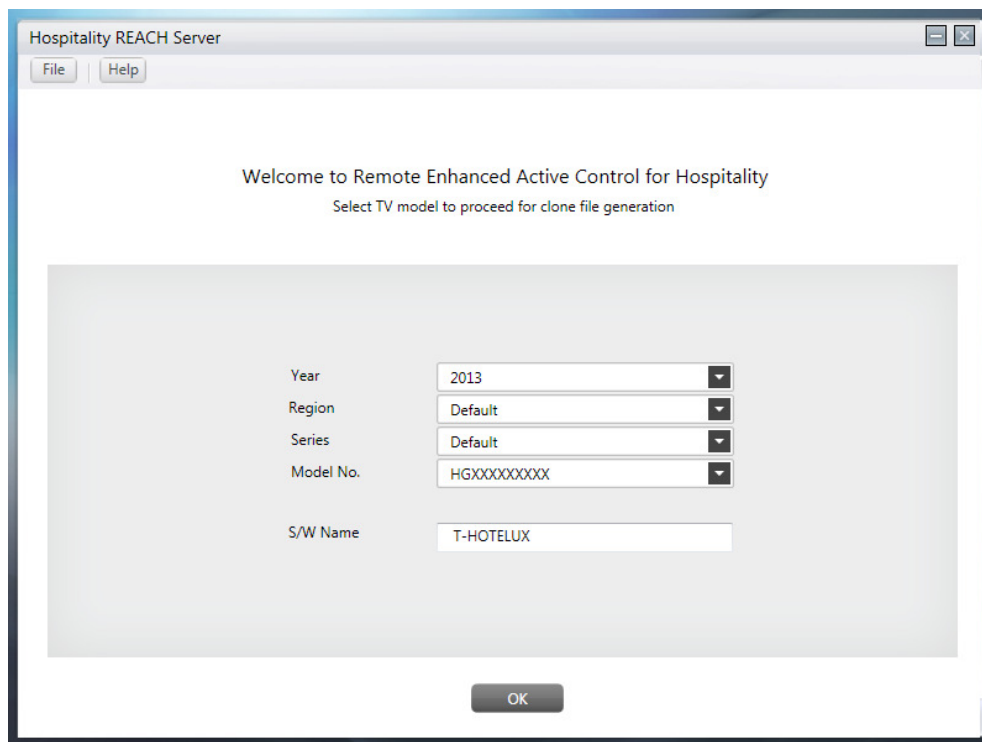


(b) REACHSERVER – to install application setup on modulator device

To launch the Reach Server application, user can either double-click on the icon made on desktop named “S-LYNK REACH.exe” or user can go to Start Menu -> All Program -> Samsung -> S-LYNK REACH -> S-LYNK REACH.exe.

2. Application will launch a window asking to select Year and Model to proceed.
3. Choose options from File Menu to proceed to the specific application requirement.



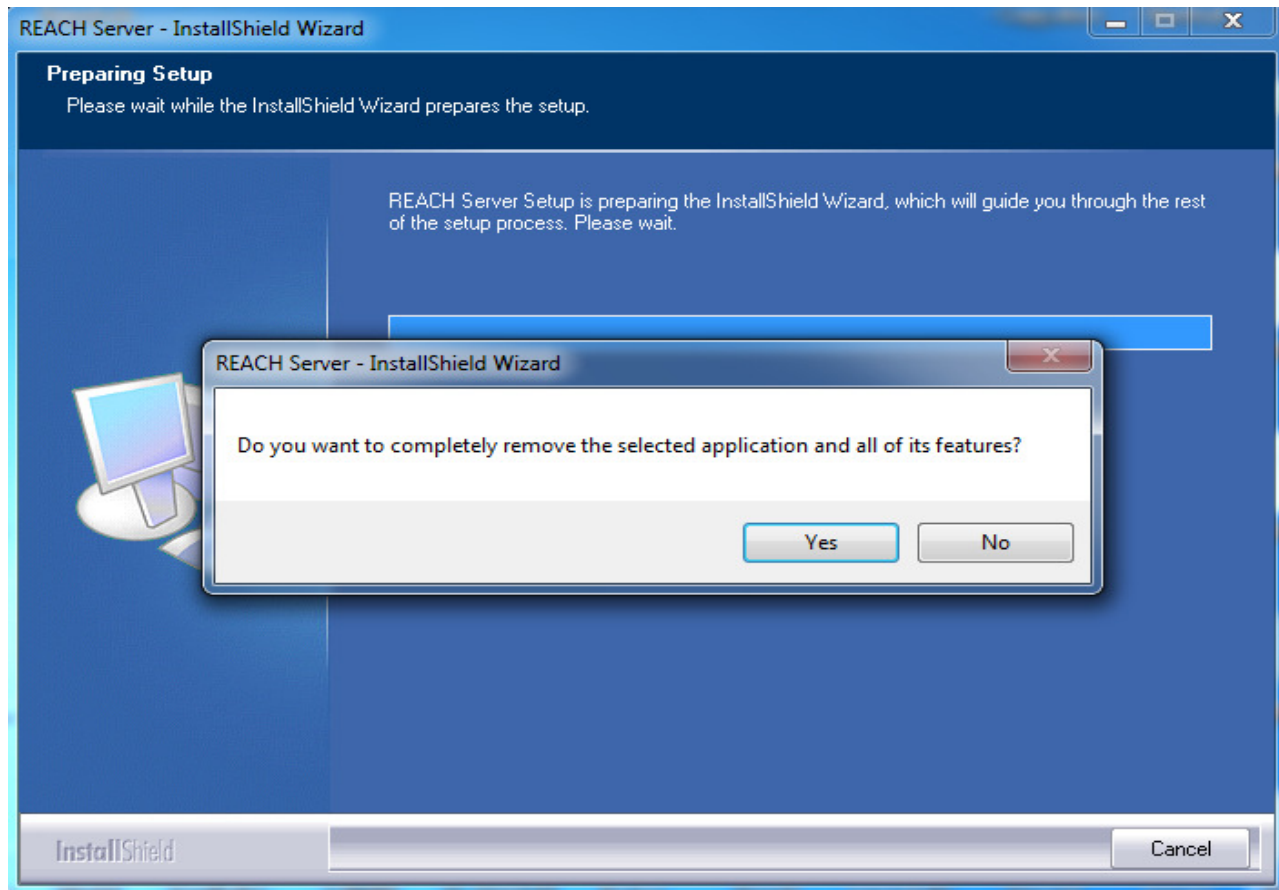


4. Select default Region, if clone data of any model has to be send to any TV model via **USB cloning** only.

**Note: Default model will be applicable for 2013 NT 13 models, and only Reach and Ticker can be send in default mode. Hospitality and Channel Map will be disabled.**

### 3.3 Uninstalling REACH Server Application

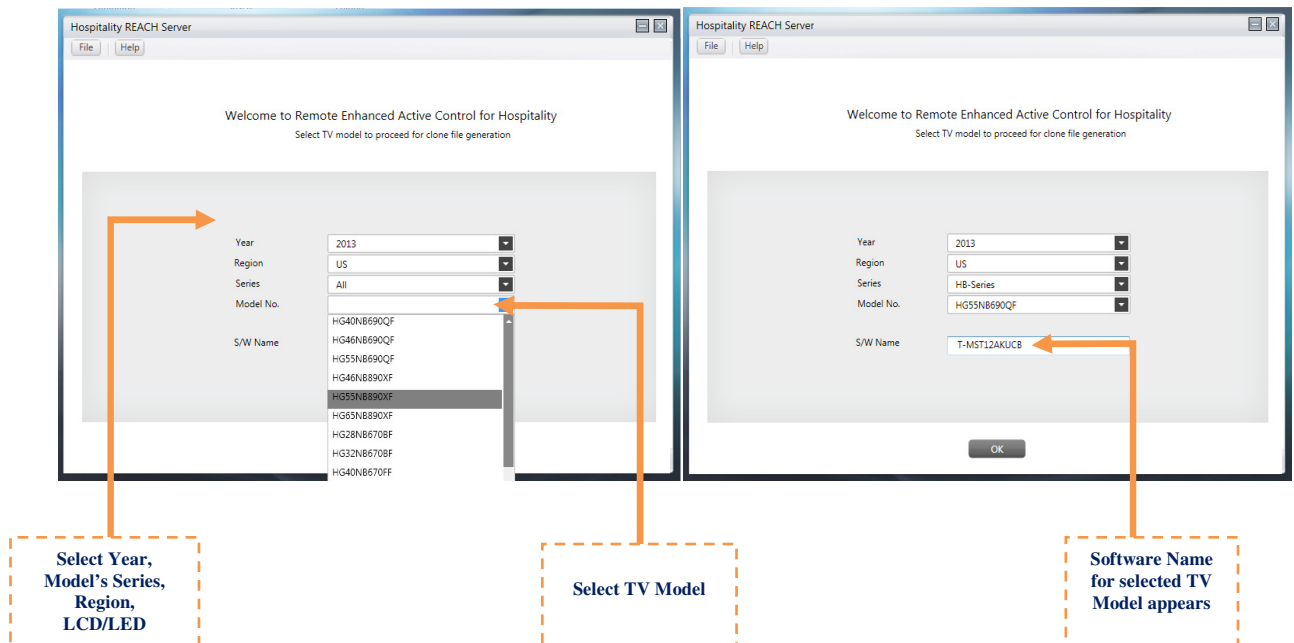
1. To uninstall REACH Server, Go to Control Panel->Programs and Features->REACH Server, right click and uninstall the application.
2. OR Double click on ReachServer.exe, it will first ask to remove the previous installed setup.



### 3.4 Create New Clone Files

After launching REACH Server, application will show a window asking for Year, Region, Series and Model selection. To create any clone file, follow the given below steps:

1. Select Year, Region, Series and Model No. from the drop down boxes.
2. After selecting Model No. S/W Name of the model will be shown in the S/W Name textbox.
3. Click on OK button.

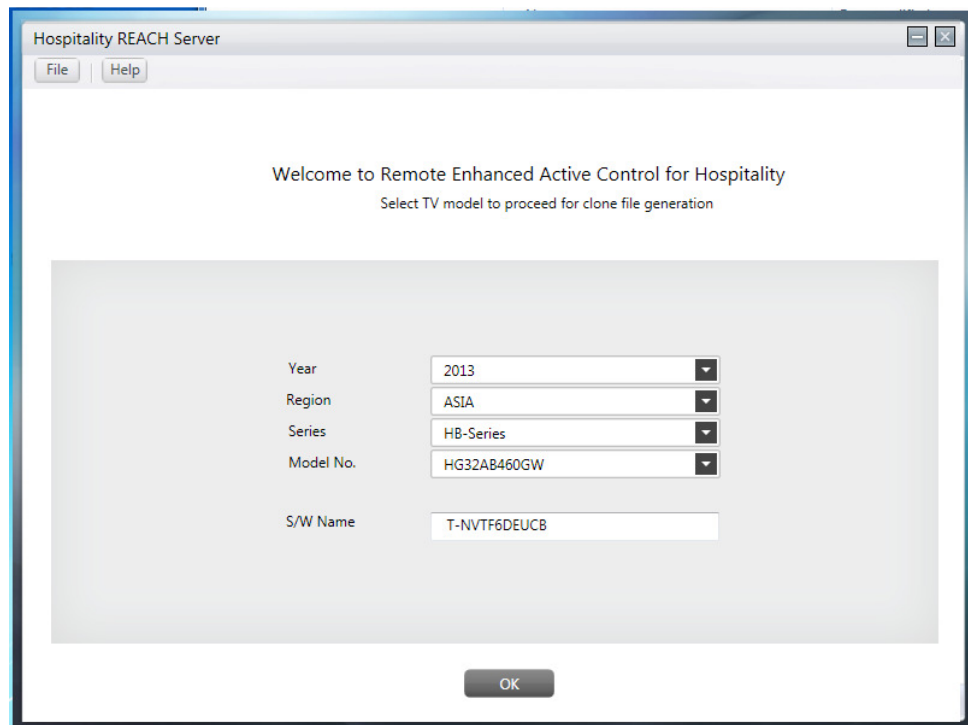
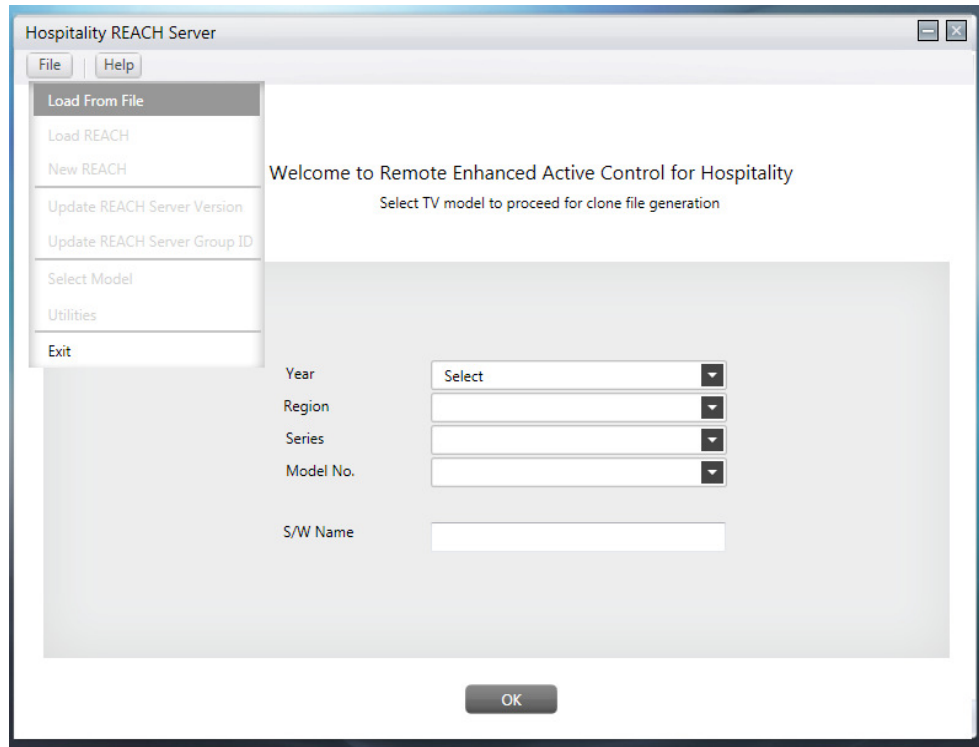


### 3.5 Modify existing Clone files

To modify the existing clone files, follow the steps as mentioned below:

1. Go to File Menu -> Select "Load from file" option.
2. After clicking on "Load from file" option, browser window will open which will prompt to locate clone file folder.
3. After locating the file, click on OK.
4. Year, Region, Series, Model No. and S/W Name will be uploaded from clone files and will set the controls in disable mode.
5. Click on OK button.
6. Hospitality option menu settings, Channels in Channel Map and Reach data will be loaded from the files. User can change them and can save or overwrite.

Note: As per specification, Ticker data will not be retrieved from "Load from File" option.

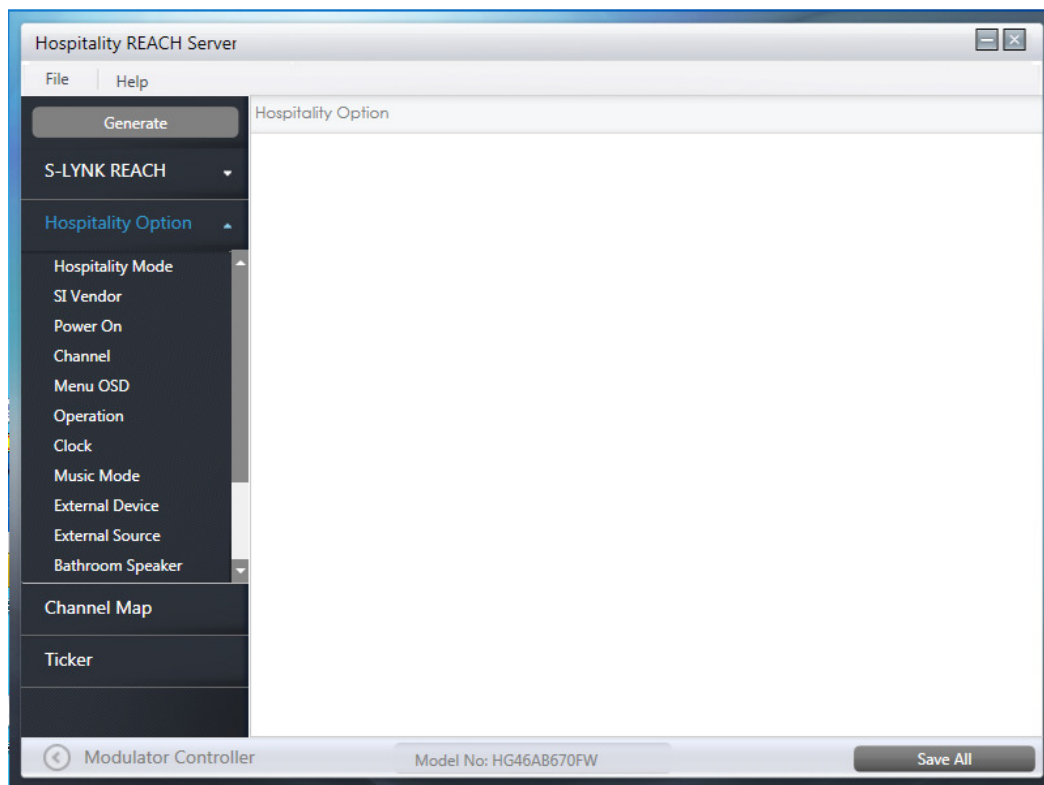


### 3.6 Hospitality Options Setting

After clicking “OK” button, Application will navigate to next screen and based on the model selected will display few or all menu tabs (Hospitality Options, Channel map, REACH, IPG, Ticker and generate).

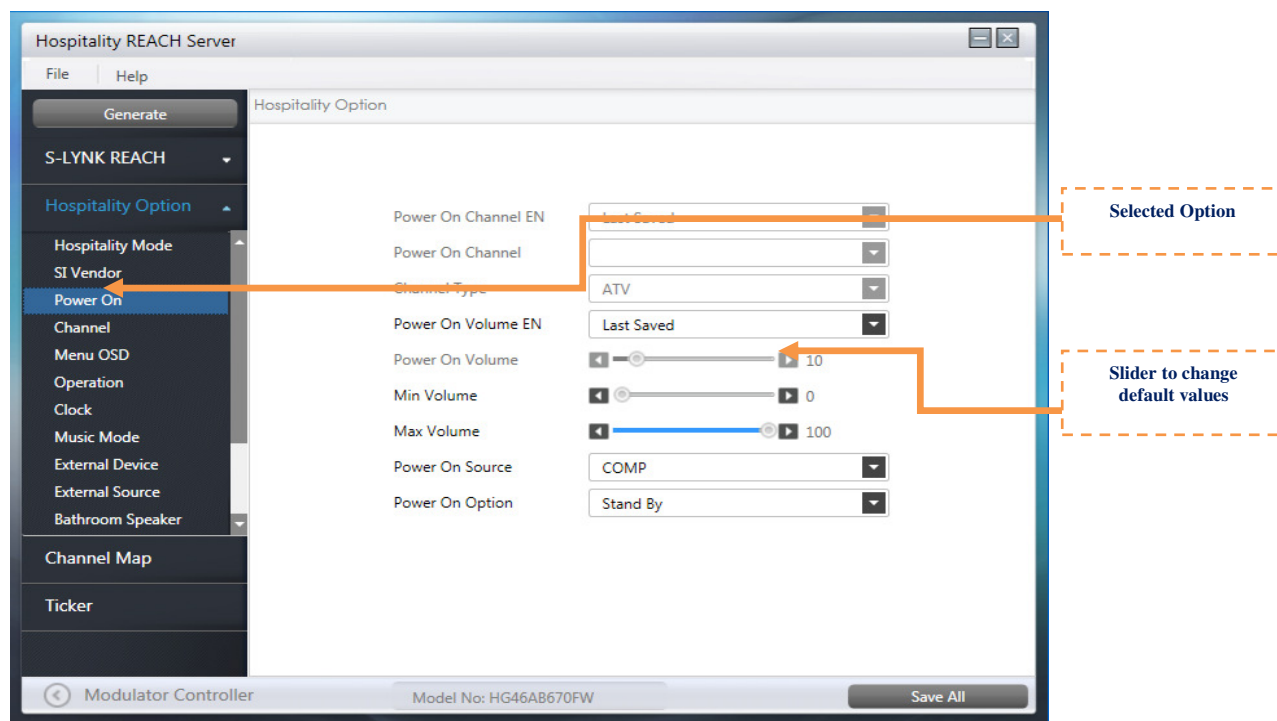
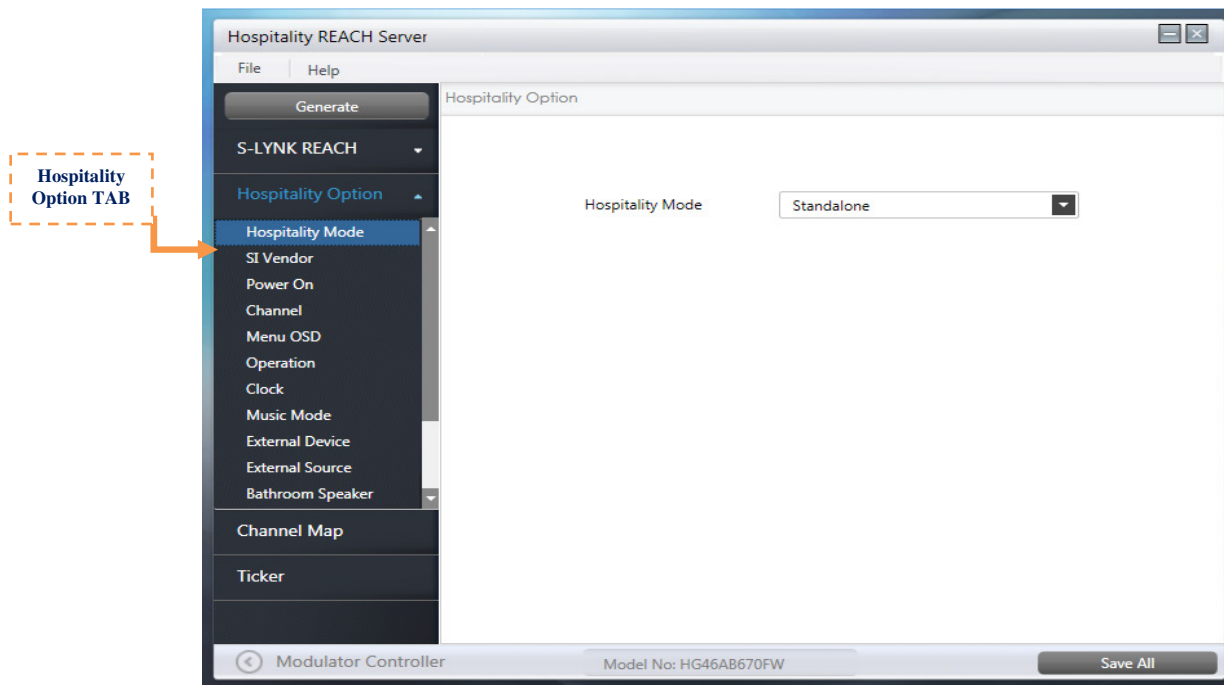
To modify factory menu settings, follow the steps as mentioned below:

1. Select Hospitality Option Tab.
2. Application will expand the Hospitality Menu and show the menu item at left side.
3. Click on any menu item, will display all the data corresponding to selected menu on right side of the application in the controls. Controls will display the default value selected.
4. Based on user need, User can select different values in the controls.
5. To set logo, click on logo Download which will navigate to a file browser window.

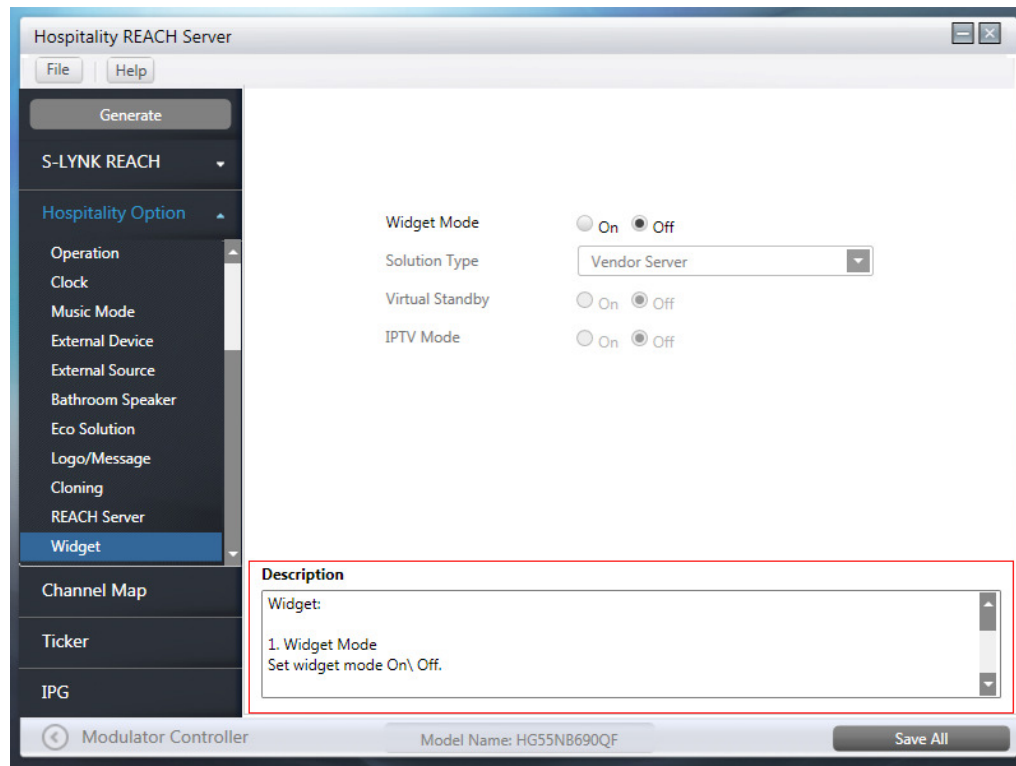




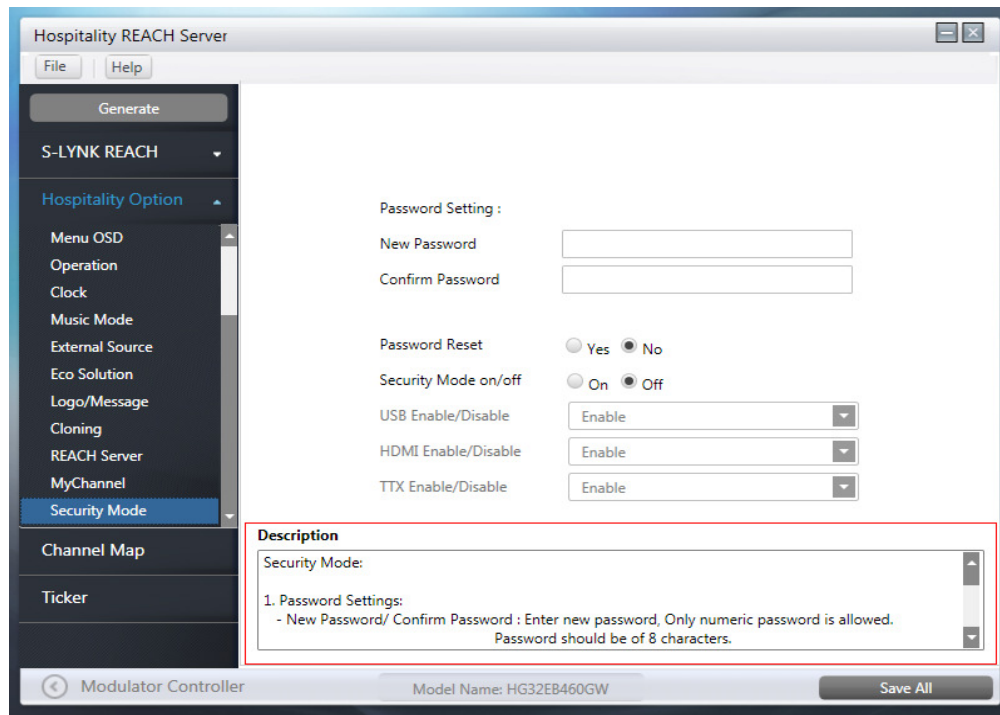
6. In DVB model (except “Smooovie” vendor), “MyChannel” option will display. On Selecting “MyChannel” option, “Genre Editor” option will display which in turn on selection display Genre Editor window.



7. If Widget Mode is ON in X12 US Model with Solution Type as “Vendor Server” and “SINC Server”, the options Channel, REACH Server, Channel Map, IPG, Anynet + Return Source, Power On Source and Power On Channel will be disabled.



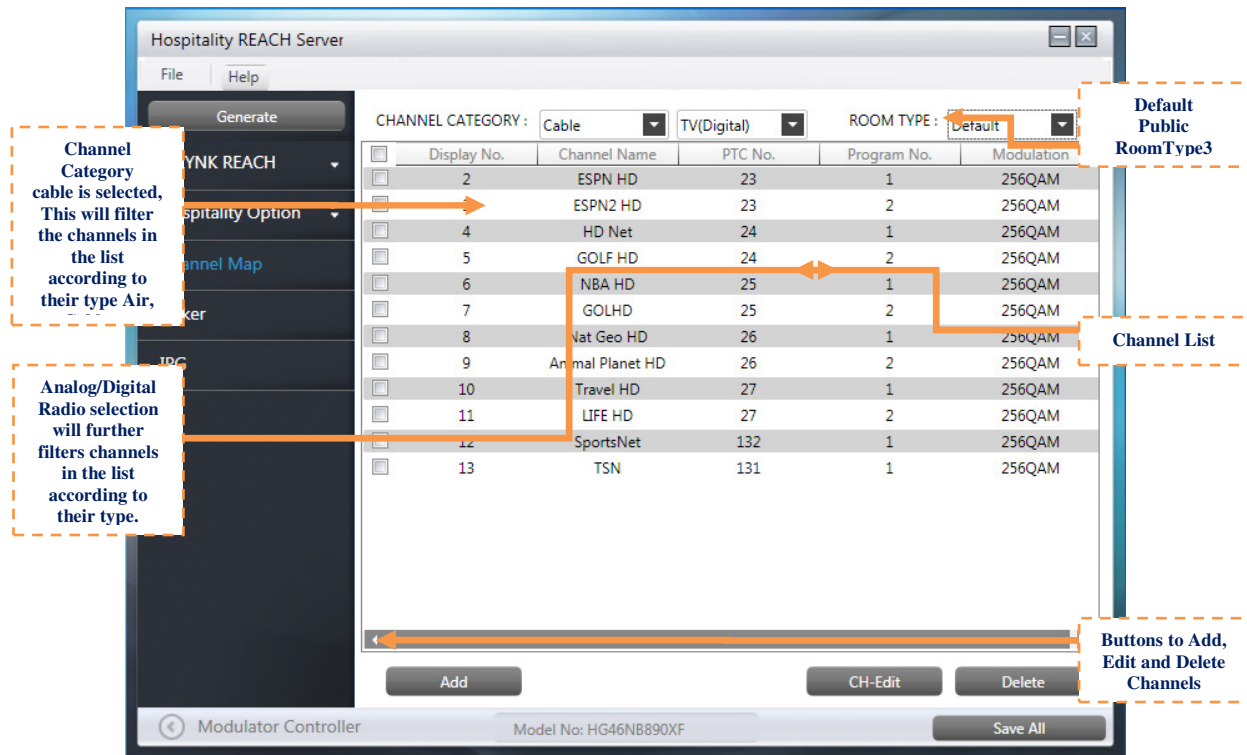
8. In NT13 EU460 Model, Security Mode option will be available. Enter password to enable/disable USB, HDMI and TTX option on TV.  
Only numeric password is allowed and size of the password must be 8 characters.
9. Setting ‘USB Enable/Disable’ option in security mode as ‘Disable’ will disable the ‘USB Media Mode’ option and ‘Hospitality Logo’ option, also ‘Hospitality Logo’ option will be reset to ‘Off’.
10. Setting ‘HDMI Enable/Disable’ option as ‘Disable’ will reset ‘Power On Source’ and ‘Anynet+Return Source’ option, will display first value selected in the combo and remove the ‘HDMI’ option from the source list. Also, ‘Anynet+Return Source’ option will be disable.



### 3.7 Channel Map Configuration

Channel Map tab shows a list of channels in a table where for every channel, Channel attributes i.e, Channel Name, PTC No., Program No., Modulation and Program Type will be displayed. **Channel map information is only configured for English language. Though channel names in any other language in clone file loaded from TV will remain undisturbed after changes from REACH Server application.**

Channel category is a list of options for Air, Cable and All, at left of the table. All is selected as default, which shows every channel existing in the map. By selecting "Analog" or "Digital", channel list can be filtered in the table. Add a new channel, edit existing channel in list or delete it by clicking on add, edit and delete buttons respectively. Edit Button also shows complete information for a channel in the list which can be modified.



1. In Channel Map only for US region three Room types are supported.
2. Room type are Default, Public and Roomtype3(only with server .Please refer section 3.15 for more detail)
3. Based on the selecting Room type, channels list get displayed.

### Add a New Channel

To add a new ATSC channel, follow below steps:

1. Select Air, Cable whichever type of channel user wants to add.
2. Select Analog or Digital.
3. Then click on the Add button. Application will pop up an Add New Channel Window.
4. Fill and complete respective fields and drop down boxes for the channel to add, like Name, Major No., Minor No., Program Type etc. These fields and their name will shown depend on selected region.
5. Click on Add Button to add the channel otherwise click Cancel.  
(For DTV channels in ATSC models display number has two fields (major-minor) which can be set to any values from 0 to 999.)



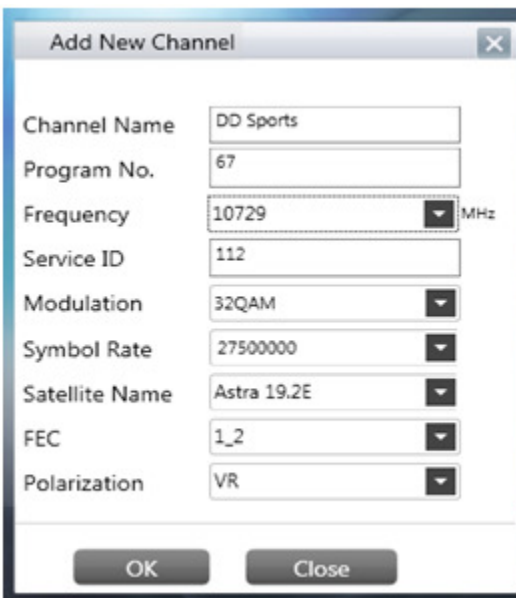
Dialog box titled "Add New Channel" with the following fields:

- Channel Name:
- Display No.:  .
- Program No.:
- PTC No.: 

PTC Number must be in range 1~135
- Modulation:  ▼

Buttons: OK, Cancel

### Add New Channel (DVB):-



Dialog box titled "Add New Channel" with the following fields:

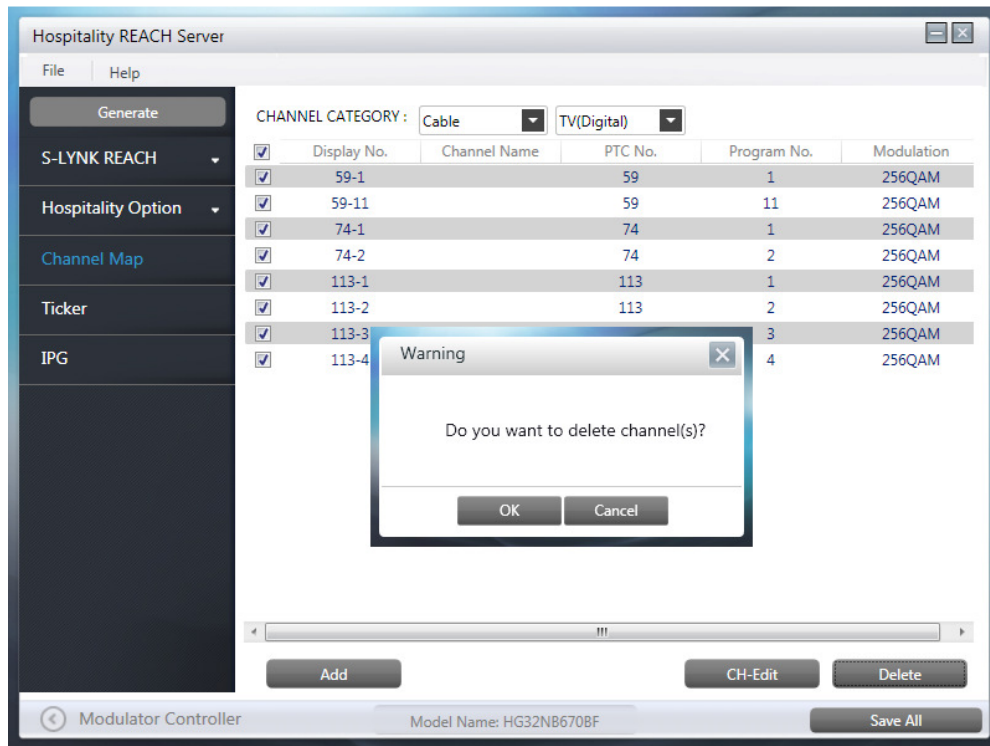
- Channel Name:
- Program No.:
- Frequency:  MHz ▼
- Service ID:
- Modulation:  ▼
- Symbol Rate:  ▼
- Satellite Name:  ▼
- FEC:  ▼
- Polarization:  ▼

Buttons: OK, Close

To add a new DVB channel, follow below steps:

1. Select Air, Cable or Satellite whichever type of channel user wants to add.
2. Select Analog or Digital.
3. Then click on the Add button. Application will pop up an Add New Channel Window.
4. The above image shows UI for Satellite channels.
5. Select the respective fields from drop down boxes for the channel to add, like Frequency, Service ID, Modulation, Symbol Rate, Satellite Name, FEC, Polarization.
6. Select the respective fields from drop down boxes for the channel to add, like Frequency, Service ID, Modulation, Symbol Rate, Satellite Name, FEC, Polarization.

## Delete a Channel from the list



To delete an existing channel from the list, follow the below steps:

1. Select Air, Cable or Satellite whichever type of channel user wants to delete.
2. Select Analog or Digital or External.
3. Select the channel from the list by selecting the checkbox to Delete and click on Delete button.

## Channel - Editor

To change display no. or channel name, follow the below steps:



Fig-1

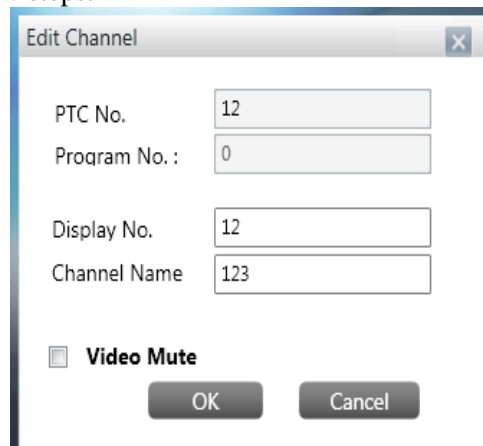


Fig-2

1. Select Air, Cable or Satellite whichever type of channels user wants to edit.
2. Select Analog or Digital or External.

3. Select the channel from the list to Edit and click on Channel-Edit button.
4. Change the display no. or Channel name of the channel. Click on OK Button to edit the channel.
5. If a new display no. already exists, application will prompt to modify the display number. On click of “Yes” button, application will swap new channel with the existing one.
6. In DVB model (except for SI Vendor selection as “Smooovie” vendor), Country selection box will be displayed.
7. Fig-1 is for DVB models & Fig-2 for ATSC models

### 3.8 Save Clone File

To save the clone files with modified parameters and channel map configuration, follow the below steps:

1. To save all the changes done in Standalone menu, Channel map, S-LYNK REACH, Ticker and IPG tab, click on “Save All” Button.
2. A browser window will open, which will ask for location to save the clone files as shown in fig. a

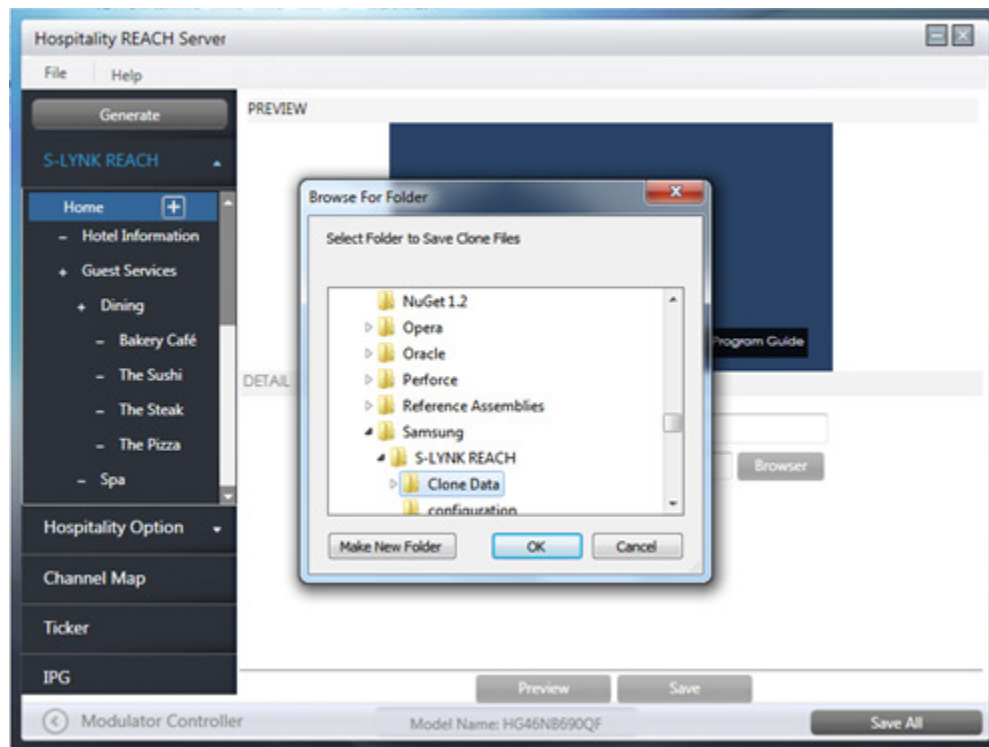


Fig. a

3. Select the folder where clone files will be saved or make a new folder and click OK.
4. After clicking OK, files will be saved in a folder named with software name of the model.  
**Note: In case of REACHSERVER install type as PC, “Clone file saved” popup will be displayed.**



5. After saving clone files, it will ask for stream generation as in fig b.  
(In case of REACHSERVER install type only for modulator application.)

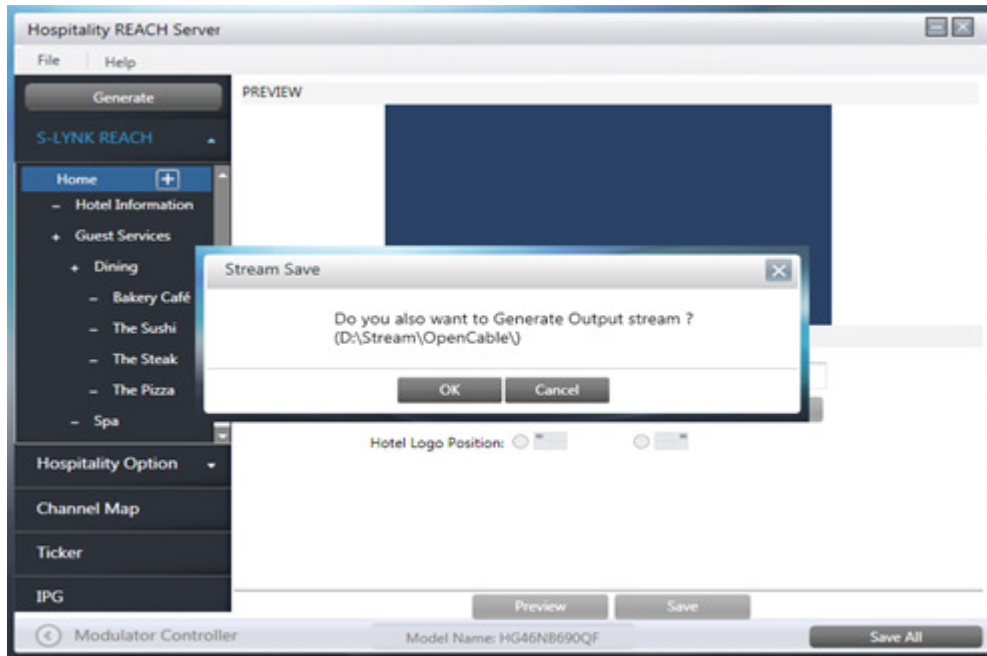


Fig. b

6. On click of “OK” button, it will open generate window for generating streams as shown in fig c.

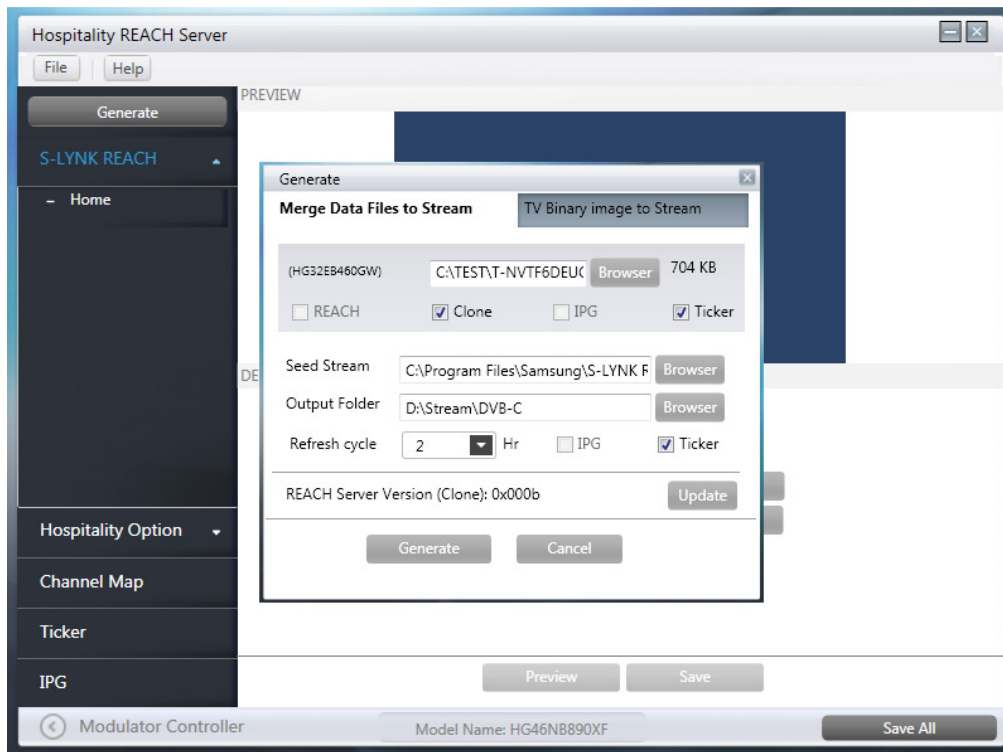
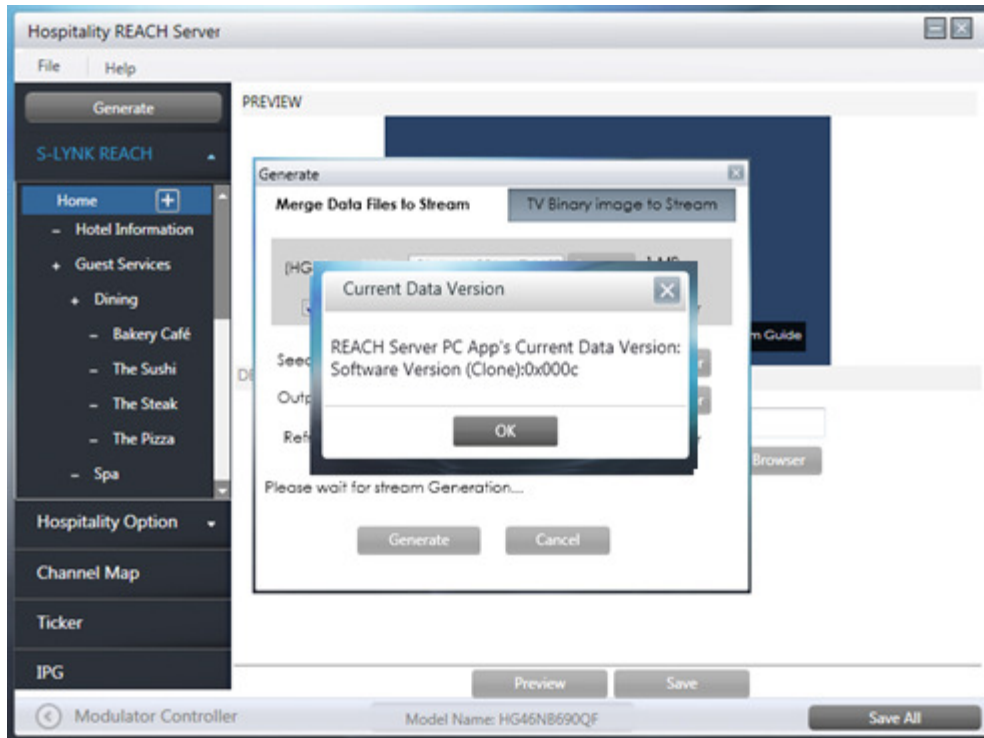


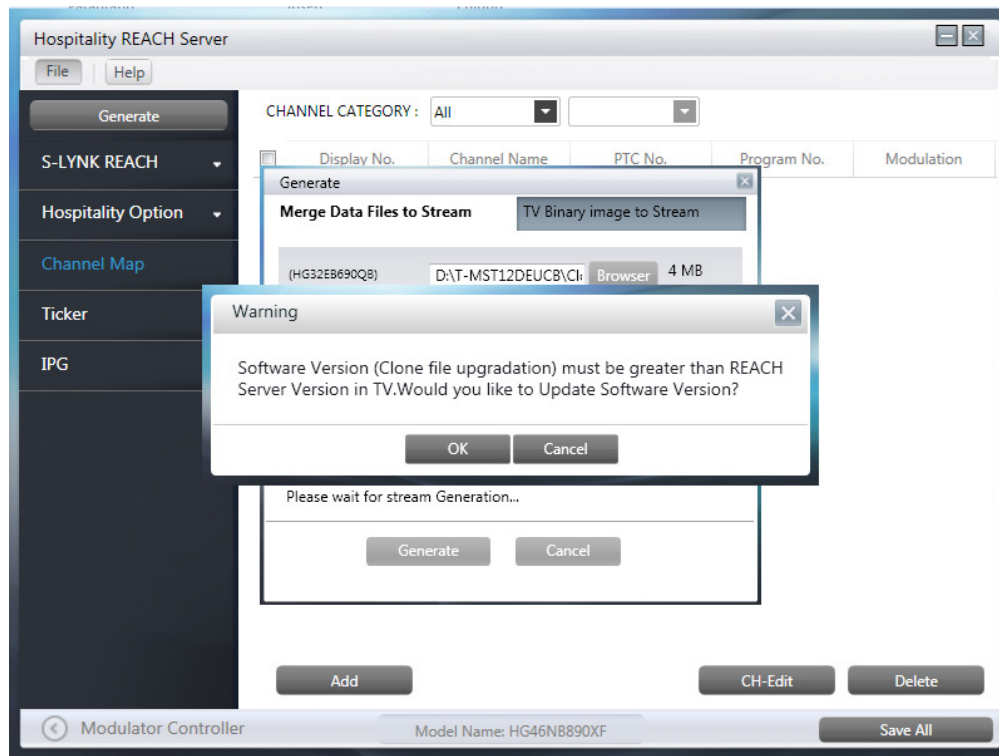
Fig. c



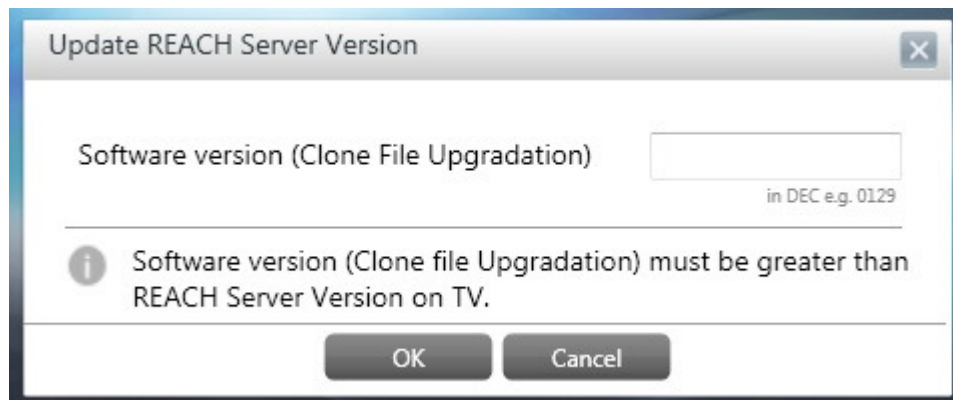
7. Click on “Browser” button to select the clone file generated.
8. After selecting the clone files check box will be enabled depending upon the files available in clone.
9. We can check the check boxes for which we want to send data in streams.
10. Set timer to download data after a selected time for IPG & Ticker.
11. On Click of “Generate” button following steps occurs:
  - Displays pop up for current version



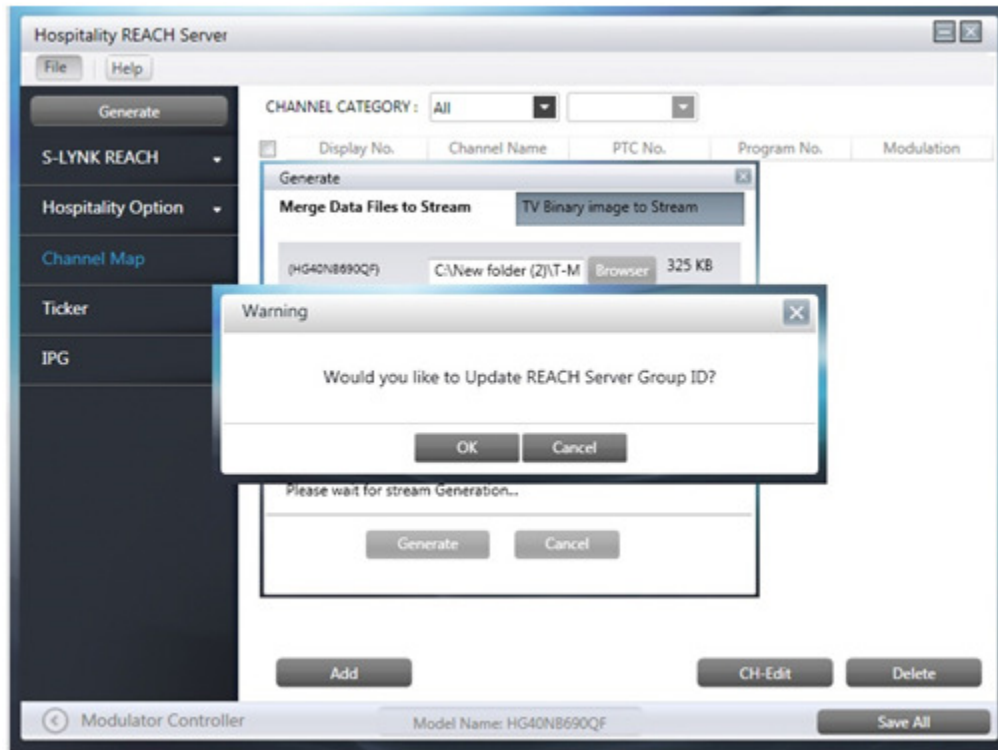
- Ask to update Software version as shown below fig.



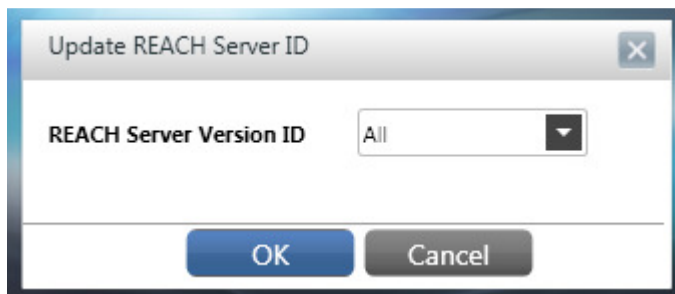
- On click of OK button update screen will appear



- Displays message for updating REACH Server Group Id like below.



- Screen for updating REACH Server Group ID as shown below

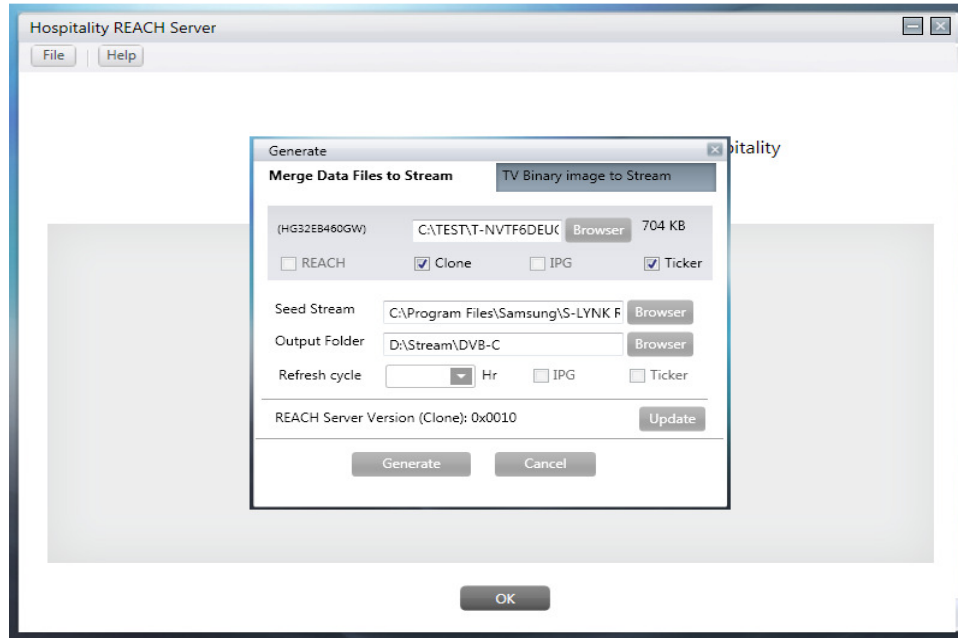


12. After streams generation completes a folder where stream is generated will be open.

### 3.9 Merging with TS- Stream (Generate Stream functionality)

To merge the clone file with TS-stream follow the steps as given below:

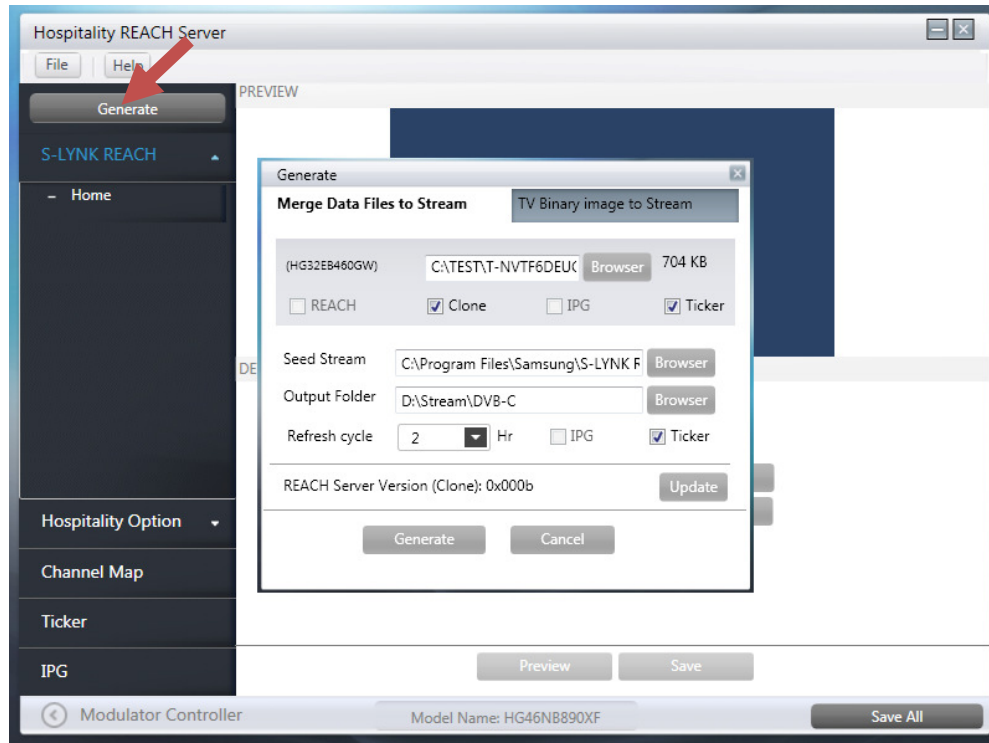
1. Go to File Menu->Utility->Generate and click on "Merge Data Files to Stream"



2. Browse Clone files folder.
3. Browse seed stream folder.
4. Browse output folder.
5. Select Refresh cycle if polling required for Ticker and/or IPG
6. Click on generate button to generate stream and output stream will be generated. This step will take few minutes to create output stream.
7. If refresh cycle is set for IPG or Ticker then after refresh cycle ticker and/or IPG contents will be updated.

To merge TV Binary files with TS-Stream follow steps as give below:

1. 'Go to File Menu->Utility' OR 'Select model -> Click on Generate Window' and click on "TV Binary Image to stream".



2. Browse TV binary files folder.
3. Browse seed stream folder.
4. Click on generate button to generate stream and output stream will be generated. This step will take few minutes or more to create output stream.

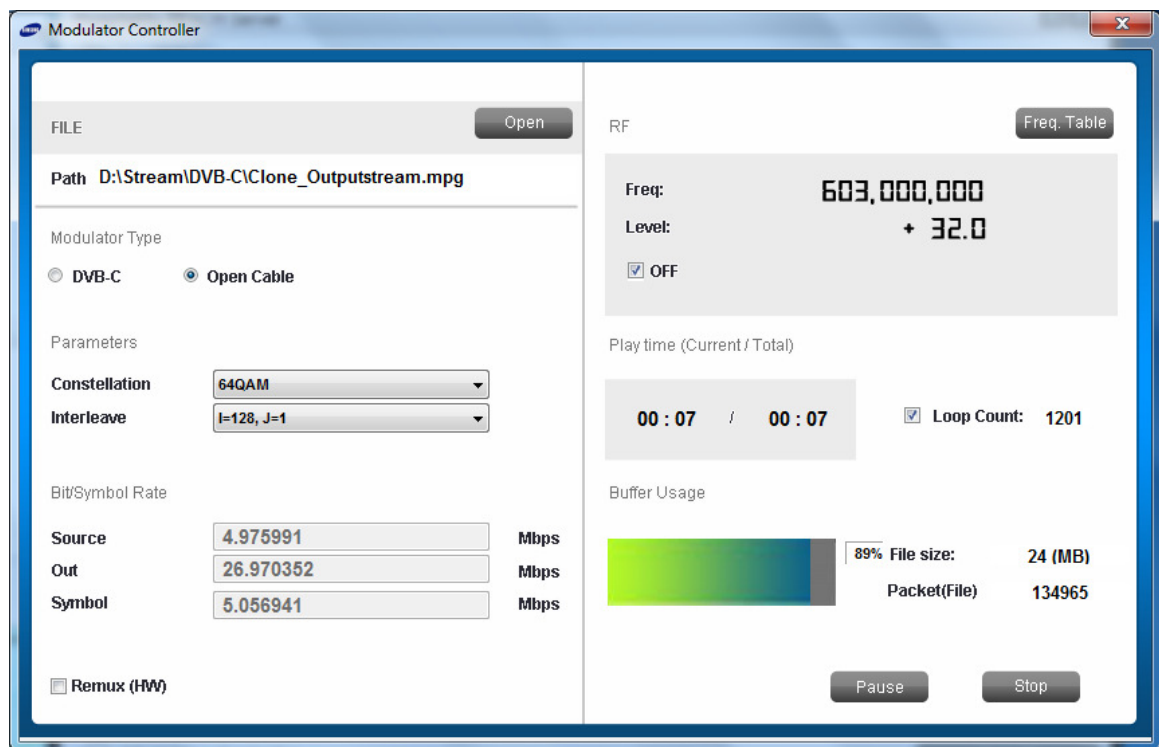
**Note:** Merge clone files are, merging the clone, S-LYNK REACH, IPG and Ticker file with the input Stream. The output multiplexed stream is used to transmit to the TV. Merge TV Binary is towards merging the TV firmware only with the Input stream. Again the output multiplexed stream is used to transmit to the TV. If 2013 model is selected then only Ticker option will be available.

### 3.10 REACH Server Modulator Controller

To open Modulator application Go to File Menu->Utility->Generate and click on Generate button. There are recommended settings for modulator.

Note: Wait till all parameters are initialized.

1. Select modulator type: DVB-C or Open Cable.
2. Select Constellation type: Example, 64 QAM.
3. Select Frequency or channel number to 87. Please note REACH Server channel in TV should be same as channel number selected in PC Tool.
4. Select stream file to play. This will be generated from TS-Stream Merge menu (refer sec 2.10).
5. File should be at path 'D:\stream\Open Cable\' or 'D:\stream\DVB-C\'.
6. File format will be .mpg.
7. Remix (HW) will be OFF.

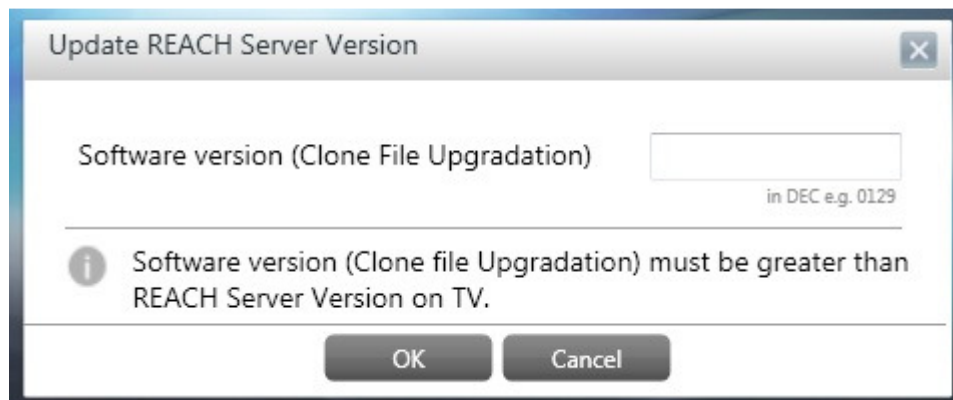


### 3.11 Upgrading clone or binary file on TV

To upgrade the Clone or Binary file to TV (Binary\_outputstream.mpg or clone\_outputstream.mpg) through Modulator utility.

1. Locate stream file in Modulator utility.
2. Select the set channel to broadcast the stream by clicking on Frequency Table.
3. Select Open cable for ATSC or DVB-C for DVB models.
4. Click Play Button to broadcast the stream.
5. In TV's factory menu, REACH Server channel must be same as the channel on which stream is broadcasting.
6. For clone file updation, REACH Server version in TV must be smaller than the software version set in Tool before generating stream file. For binary file updation, current software version in TV must be smaller than software version of binary used for updating.
7. Click on Manual REACH Server. (Please check channel setup is set to Cable not Air if cable is connected to TV for broadcasting.)

### 3.12 Update REACH Server Version



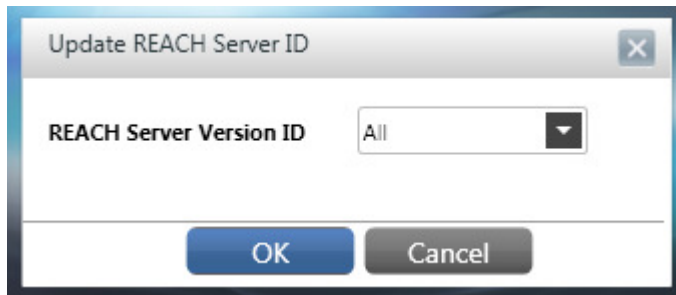
To update REACH Server version for Clone, follows the steps as given below.

1. Go to File Menu -> Update Software Version.
2. A window will open which ask for Software Version (Clone File Up gradation).
3. Provide higher version than TV REACH Server version. E.g.
  - i) If software version is set as 01a0 in REACH Server PC application, then current TV REACH Server version should be less than this value for update.
4. Software version value for clone will be in decimal format
5. After providing the value, click on OK button for update version value.



### 3.13 Update REACH Server GROUP ID

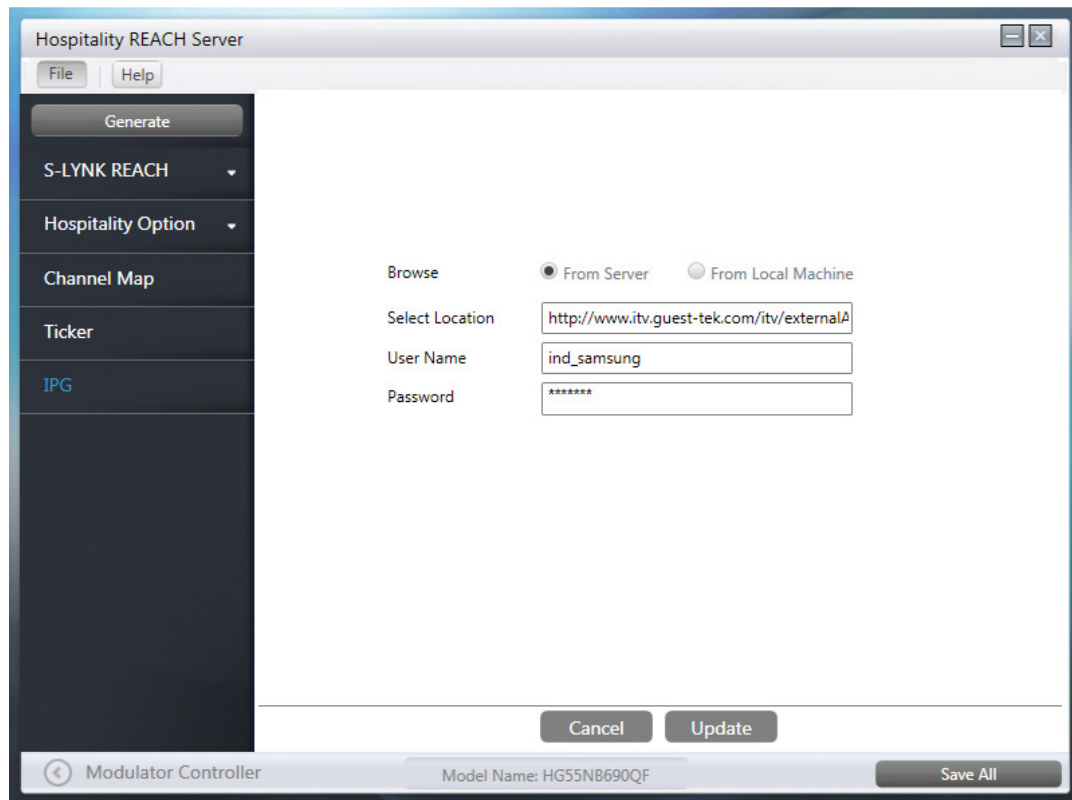
1. This is used to download the clone file to only the specific TV group.
2. Cloning is done into only the specific TV group with only one REACH Server.
3. There will be the new item that set the specific group applying the cloning file in the program of REACH Server.
4. There will be the new item that set the specific group to classify TV sets in a hospitality site in the hotel menu of TV.
5. The owner will be able to apply each cloning file to each TV group with only one REACH Server.
6. To update REACH Server Group Id for Clone, follow as below.



### 3.14 IPG

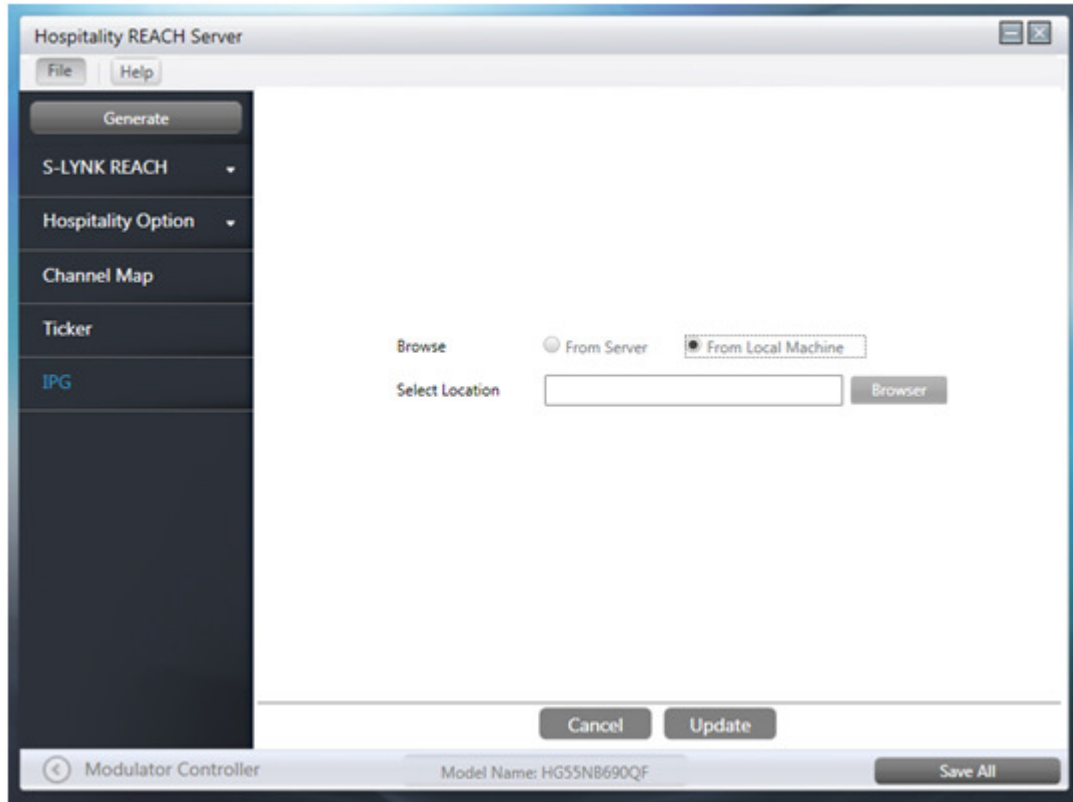
We can configure server settings to get XML data from network server & Local Machine, follow the below steps.

1. Go to IPG tab.
2. In IPG tab mainly two options are given
  - From server
  - From Local Machine.
3. If user select browse from server option “URL” is provided automatically in select Location editable textbox with corresponding username and password as shown in below fig.



The screenshot shows the 'Hospitality REACH Server' application window. On the left is a dark sidebar with a menu containing 'Generate', 'S-LYNK REACH', 'Hospitality Option', 'Channel Map', 'Ticker', and 'IPG' (which is highlighted in blue). The main area has a 'Browse' section with two radio buttons: 'From Server' (selected) and 'From Local Machine'. Below this, there are three input fields: 'Select Location' containing the URL 'http://www.itv.guest-tek.com/itv/externalA', 'User Name' containing 'ind\_samsung', and 'Password' containing '\*\*\*\*\*'. At the bottom of the main area are 'Cancel' and 'Update' buttons. The footer bar shows a back arrow, 'Modulator Controller', 'Model Name: HG55NB690QF', and a 'Save All' button.

4. If user selects Browse from Local machine then user has to select xml file from Local machine.



5. On clicking Update button the entered settings will be validated.
6. On click of "Save All" button settings will be saved in Config.txt file in the executable directory of running application for valid credentials entered.

### 3.15 S-LYNK REACH (Remote Enhanced Active Control for Hospitality)

S-LYNK REACH is feature to create configurable Menu using a tool and transfer it to TV using RF stream. The TV decodes the file to generate the menu designed according to the tool. It also includes display of IPG (Interactive Program Guide) which can be launched from S-LYNK REACH Menu. The IPG data is provided in the XML format to the tool. The tool further processes this data for TV to understand. A live server is maintained by the vendor to provide this IPG data.

Click S-LYNK REACH Tab to create new or load existing Hotel menu.

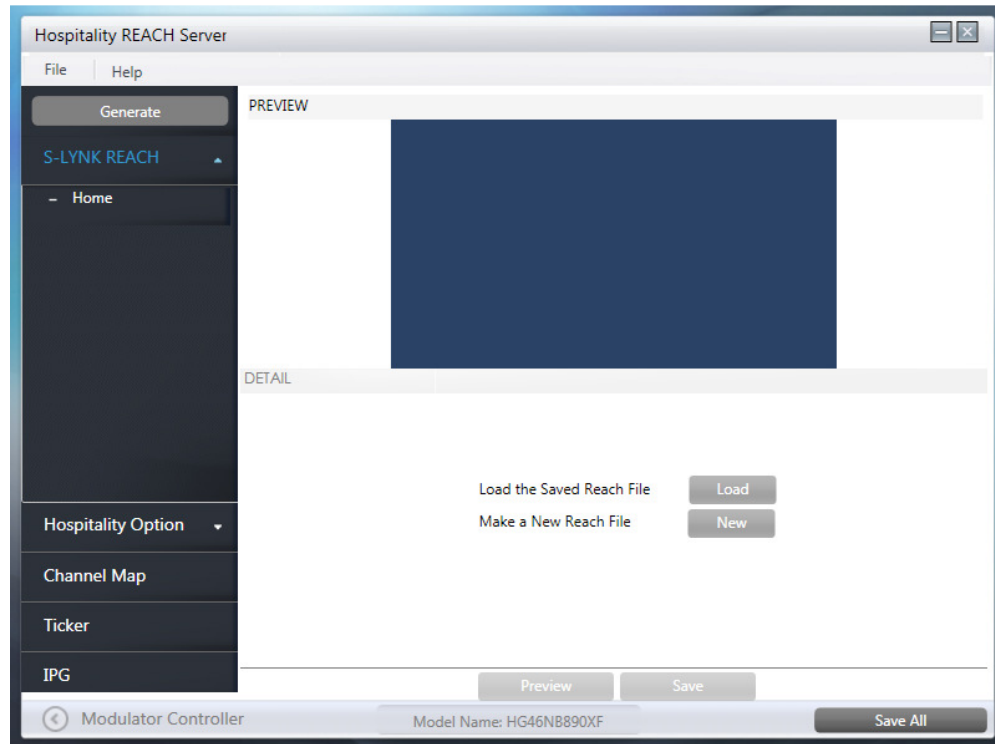


Fig. 1

#### Load S-LYNK REACH Feature:

1. Click the 'Load' button for loading the sample file (HotelMenu.xml). (Please refer to load sample file provided in installed location in folder 'REACH\_SAMPLE' for 2013 and 2012 models). Select sample folder X9\_NVT13, for NVT and X9 models and X10\_X12 for X10 & X12 models.

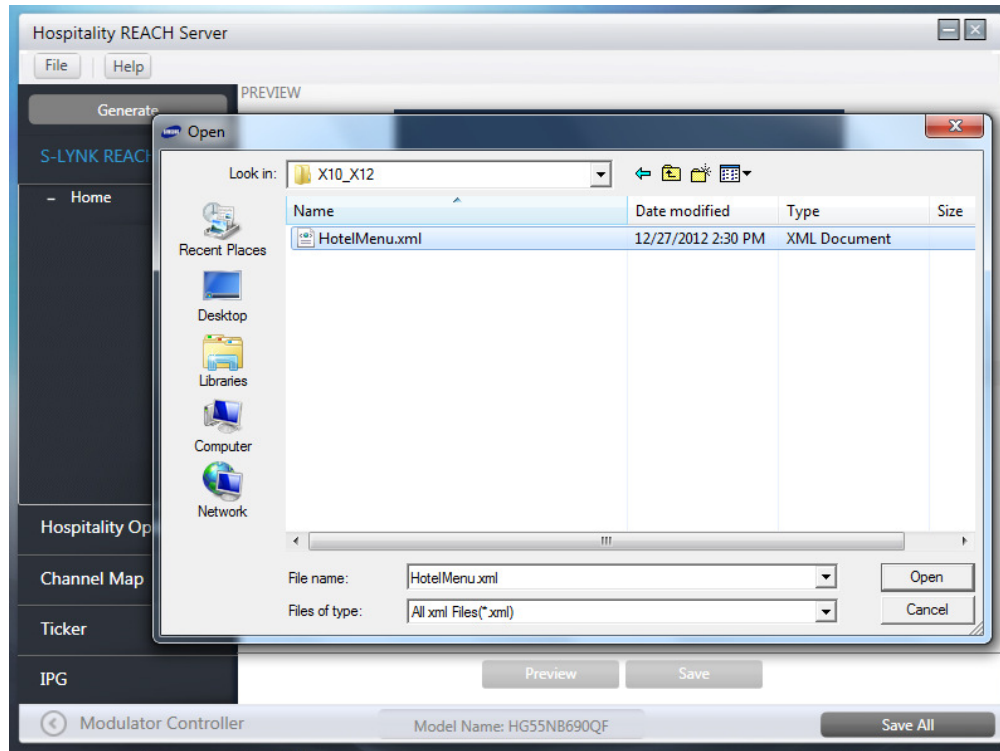


Fig. 2

2. Click open after selecting file 'HotelMenu.xml'.

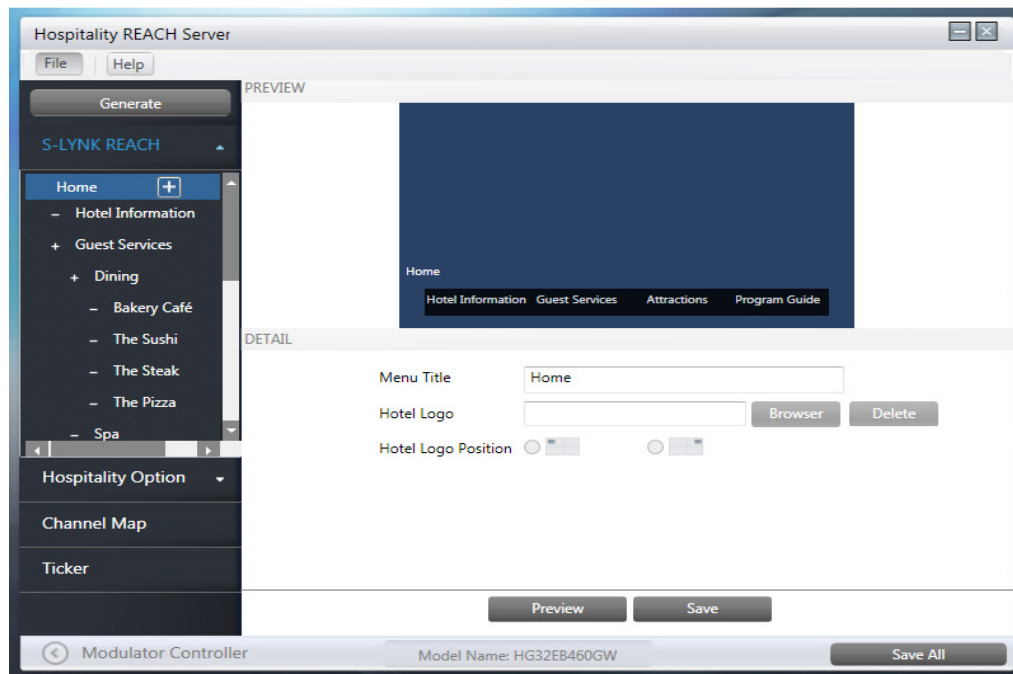


Fig. 3

3. Click any menu item to see its content and Preview like below Fig 4.

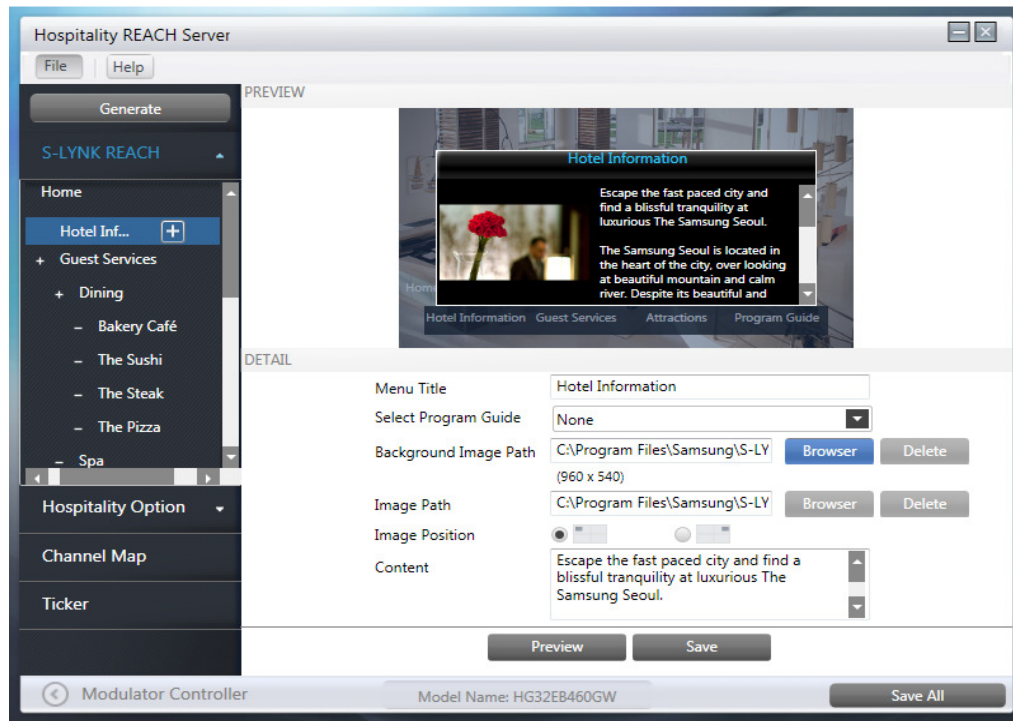


Fig. 4

4. If we select any menu which will launch some application in TV, then application name will be shown in Preview. For example, Click on 'Select Program Guide' then Launch application will be 'Select Program Guide' and Preview as shown in fig 5.

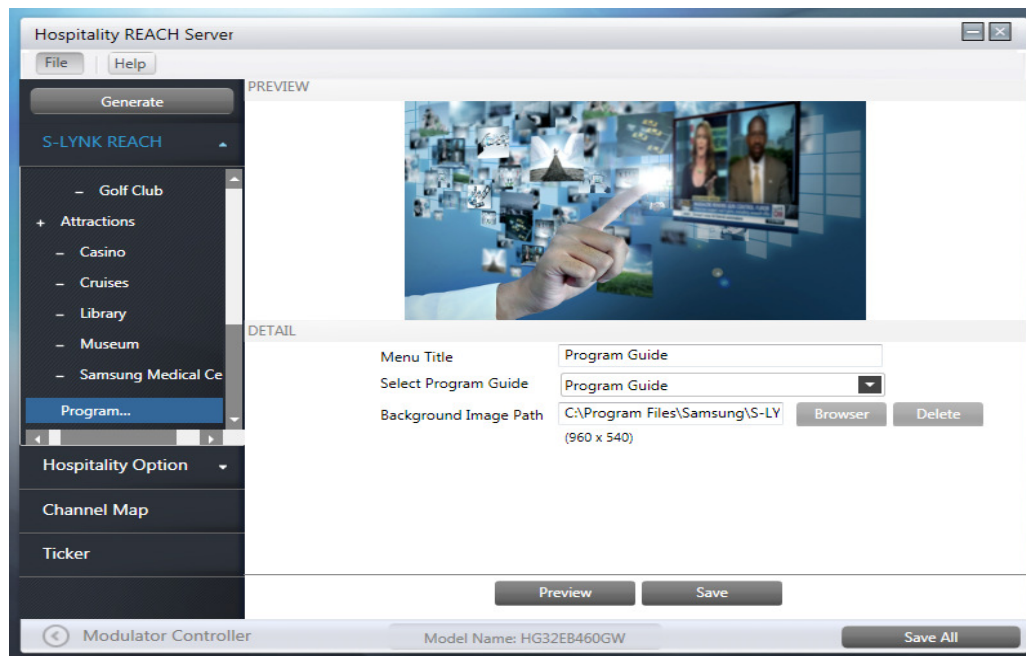


Fig. 5

5. If we select any menu which will just show information, then in 'Select Program Guide' dropdown, 'None' will be displayed.
6. Click on any menu item to edit/design menu contents.

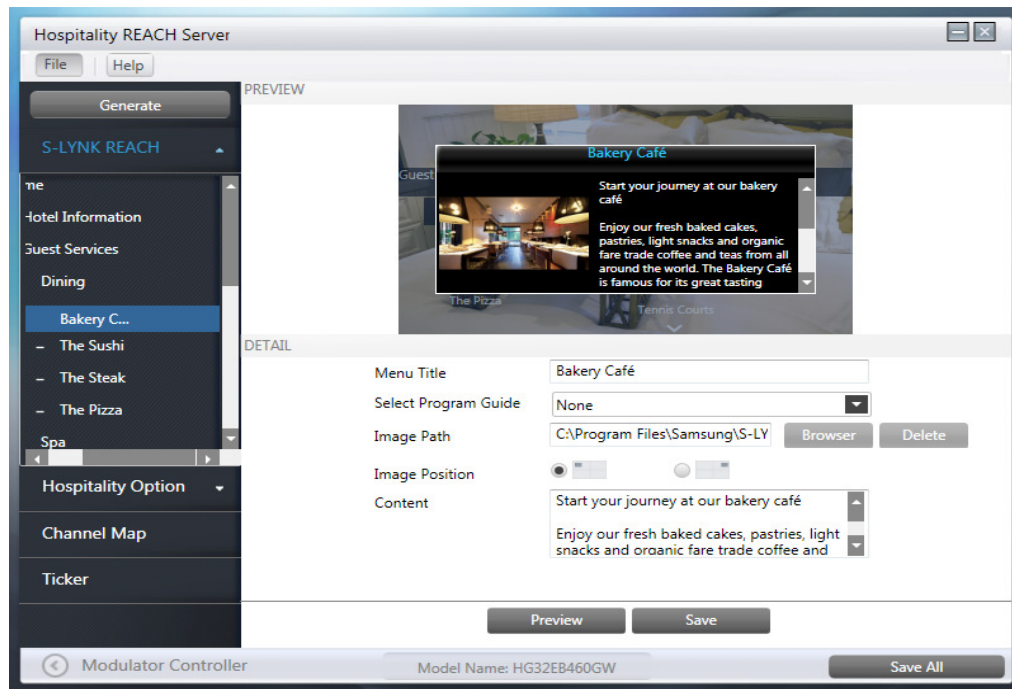


Fig. 6

7. To see Preview or to modify a menu, select that menu item. For menu which will have information content will be shown like Fig. 7

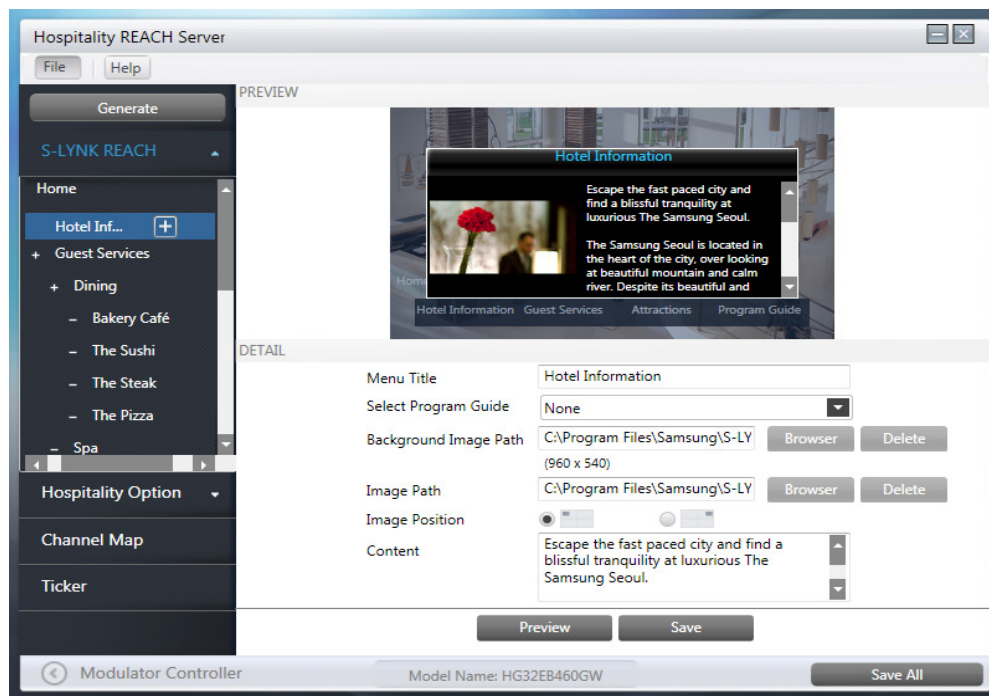


Fig. 7



8. We can edit menu title, image position, image path, content, hotel logo and hotel logo position. We can see preview after selection from 'Browser' button and also with left/right image position by clicking 'Preview' button.
9. If we want to save the modified value for menu then we need to click on any other menu item. It will automatically save menu.
10. If we want to modify order of menu then Right Click on Menu selected as below fig 8.

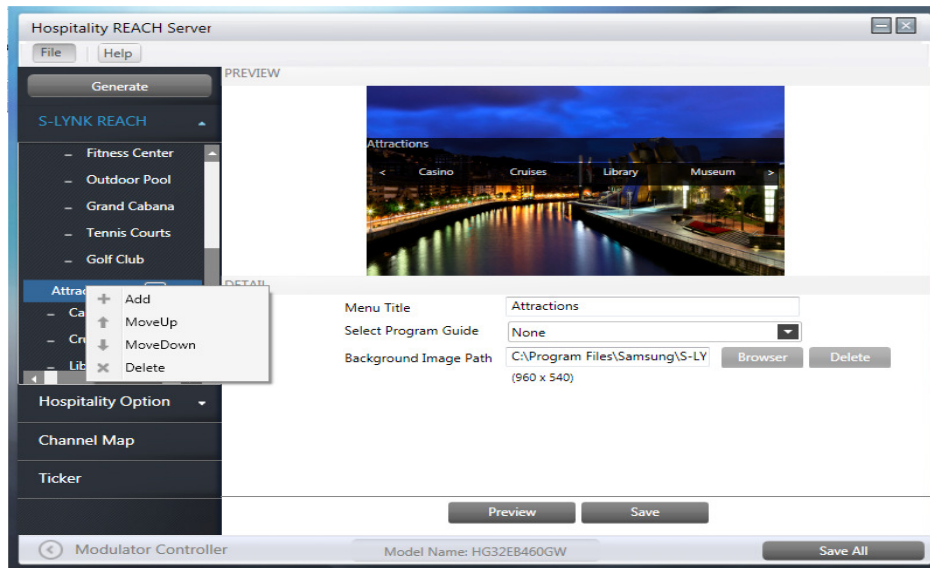


Fig. 8

11. If we want to change the order of menu items then click on 'Move Up' or 'Move Down' by selecting & right clicking menu item
12. Click 'Home' menu to add Hotel Logo. As shown in Fig 9

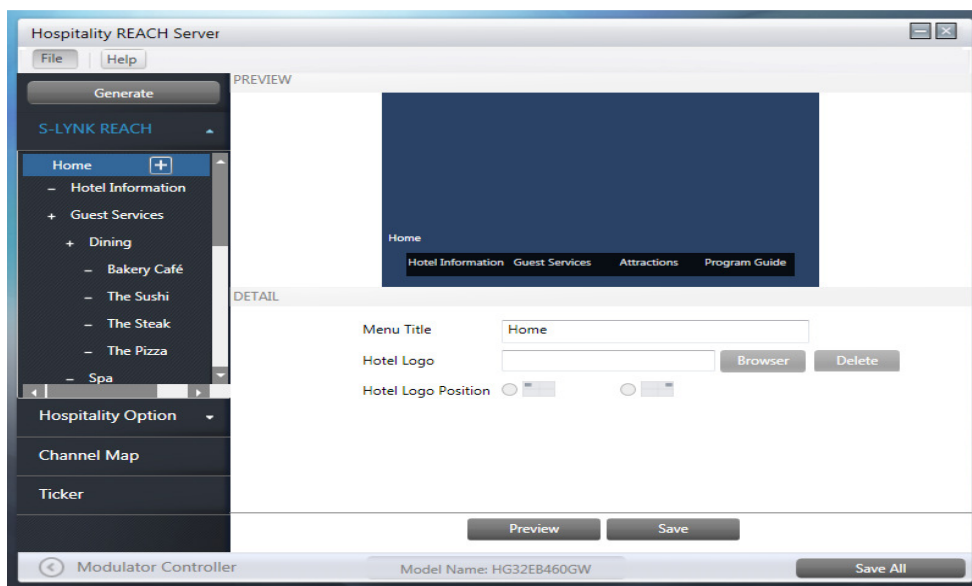


Fig. 9

13. Click on 'Save' button to save only S-LYNK REACH files. It will ask to select path where we want to save. Then it will save all updated S-LYNK REACH files in selected path.



14. If we want to again modify menu then click any menu and after finishing all changes, click 'Save' as shown in Fig 10.

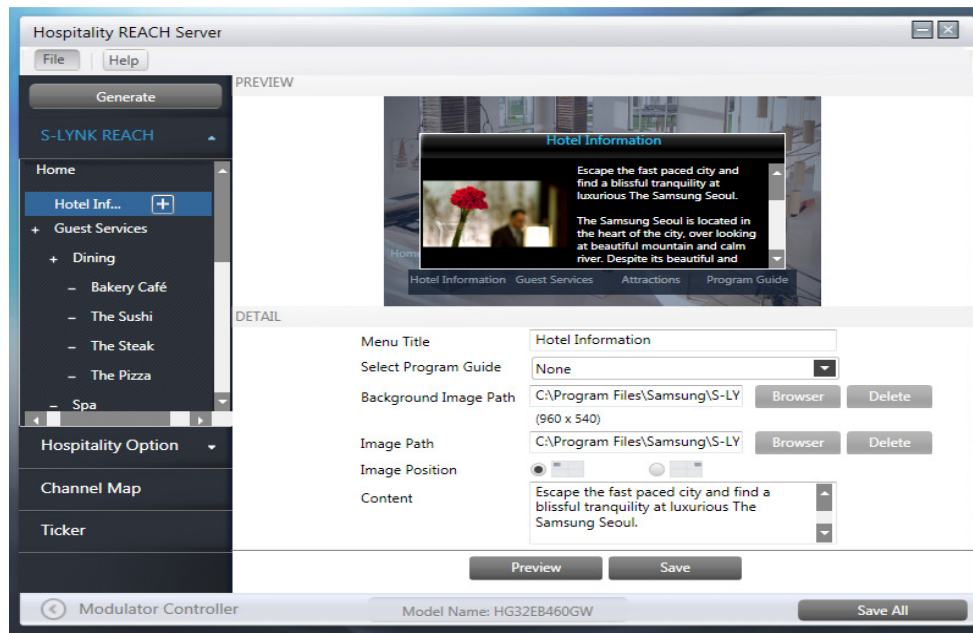


Fig. 10

### Create New S-LYNK REACH Menu Feature:

1. We can create new S-LYNK REACH menu using click on 'New' button as shown in Fig. 1.
2. We can create new menu/sub menu of any existing menu using right click option 'Add' or click on '+' icon on right of selected menu as shown below Fig 11.

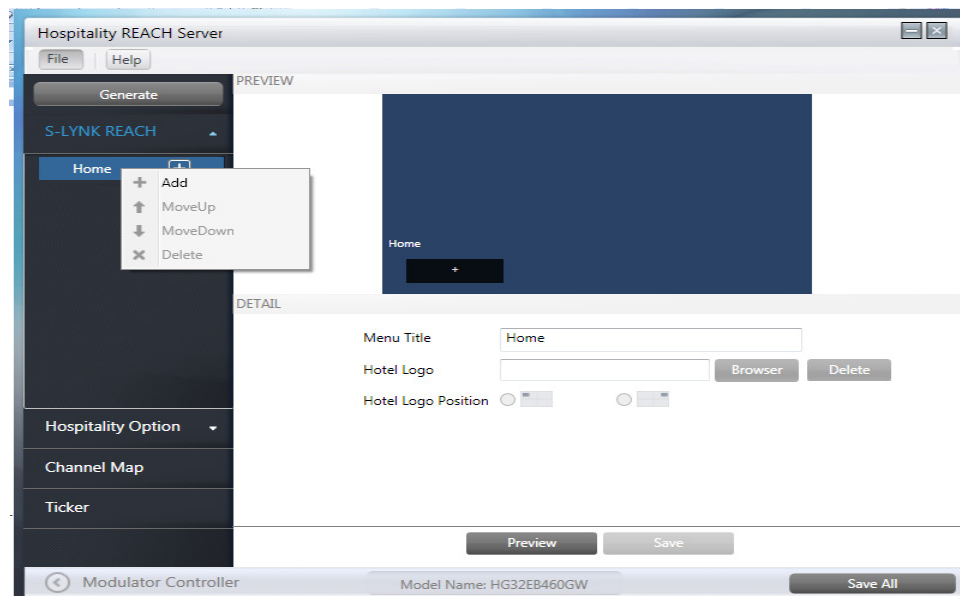


Fig. 11

3. On Clicking on 'Add' or '+' icon, menu with default title 'Untitled' will be added under selected menu with Launch application type 'None' as shown in fig 12.

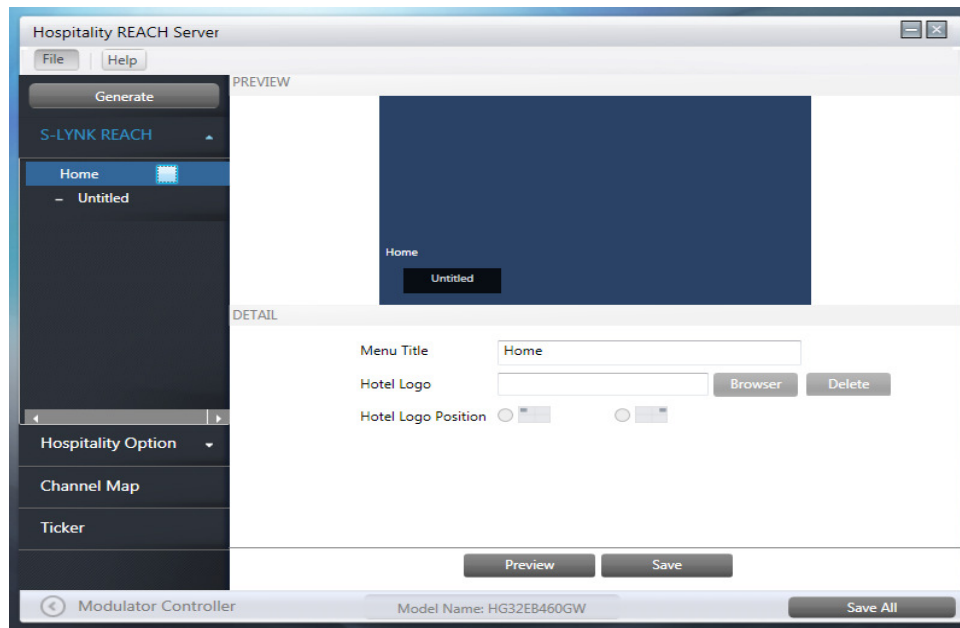


Fig. 12

4. Edit menu Title by selecting newly added menu 'Untitled' in right pane and select Launch application type for this menu.
5. To launch Program Guide on click of any menu, select Program guide as "Program Guide" otherwise select 'none'.
6. Edit content same as mentioned in Fig. 6 then Fig. 7.
7. Select background image for first level menu as shown in fig 13. To refer image resolution, please refer Note below.

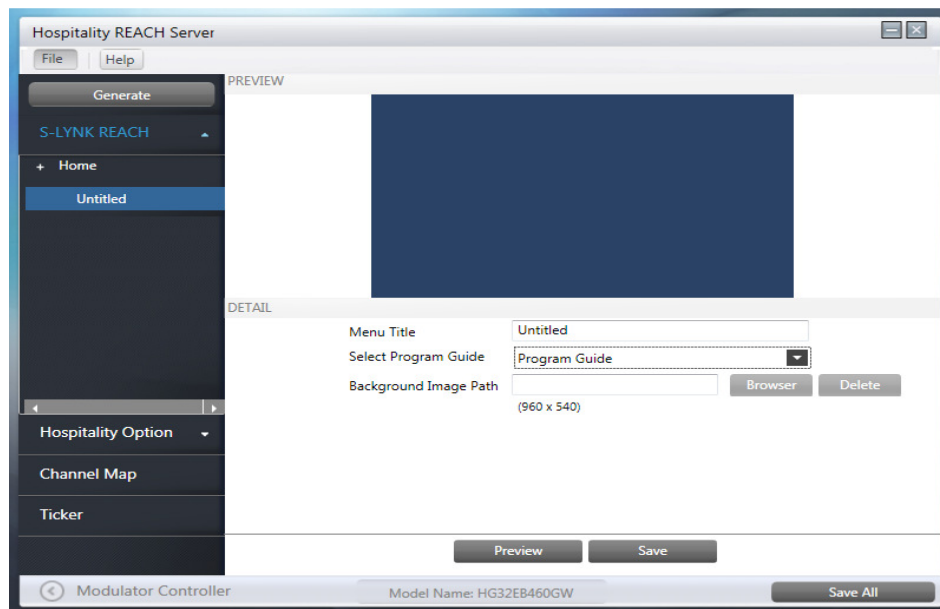


Fig. 13

8. To see the changes in Preview, Click on "Preview" button.

**Note:**

- Size of background image for X9 and NVT models is 960 x 540 pixels.
- Size of background image for X10 and X12 models is 1280 x 720 pixels.
- Menu image size is 292 X 156 pixels.
- If Image for Menu, Background and Hotel logo is selected then to delete any image click on “Delete” button next to “Browser” button.

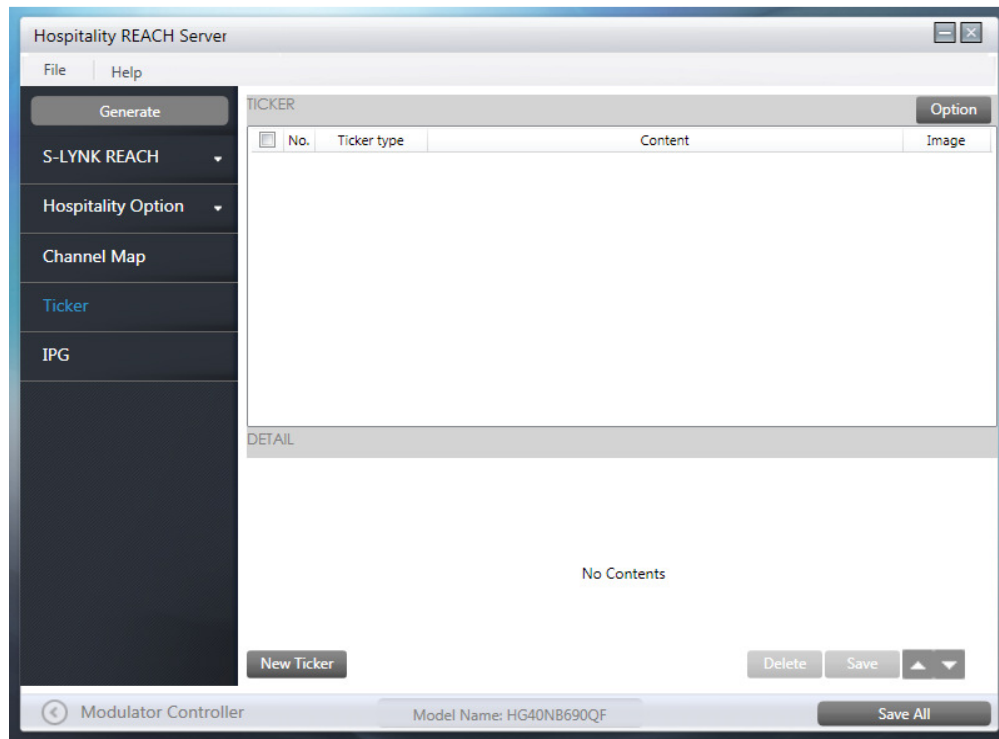
### 3.16 TICKER

Ticker is feature to create configurable information using a tool and transfer it to TV using RF stream. TV decodes the information to generate ticker on TV according to the data specified by tool.

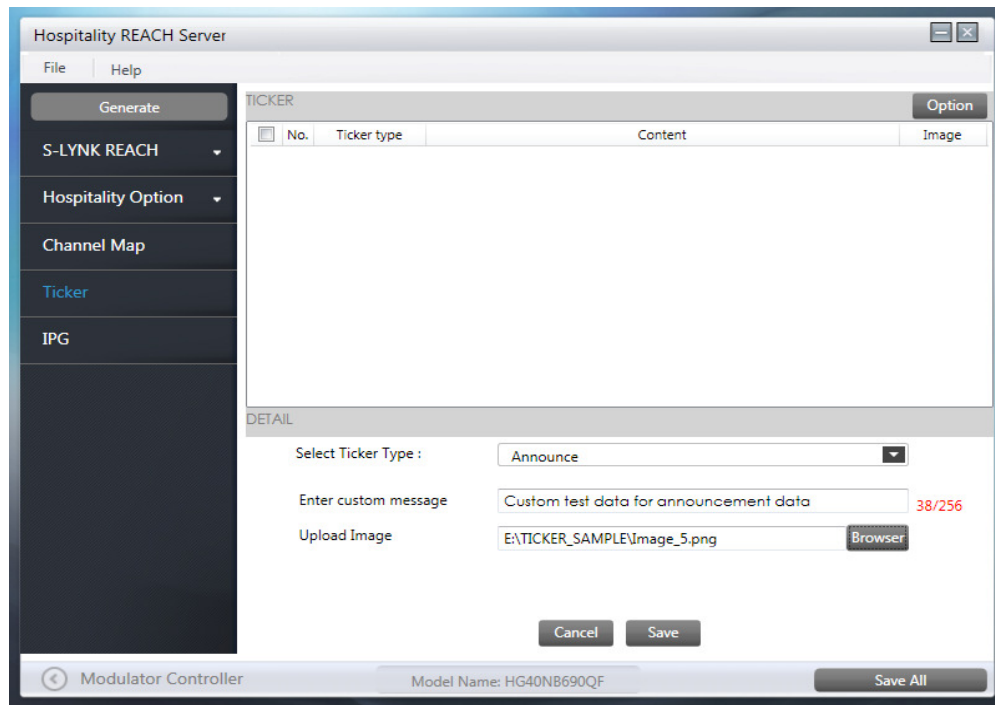
It supports two types of information display weather and announcement on TV.

#### Ticker Functionality:

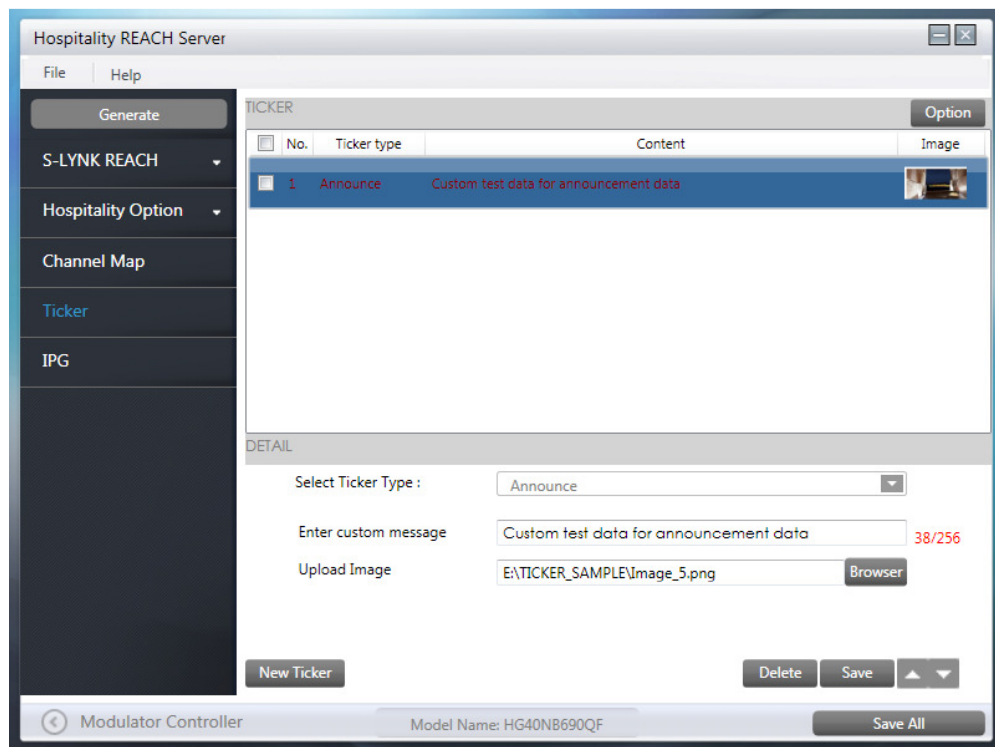
1. To add a new ticker item, click “New Ticker” button.



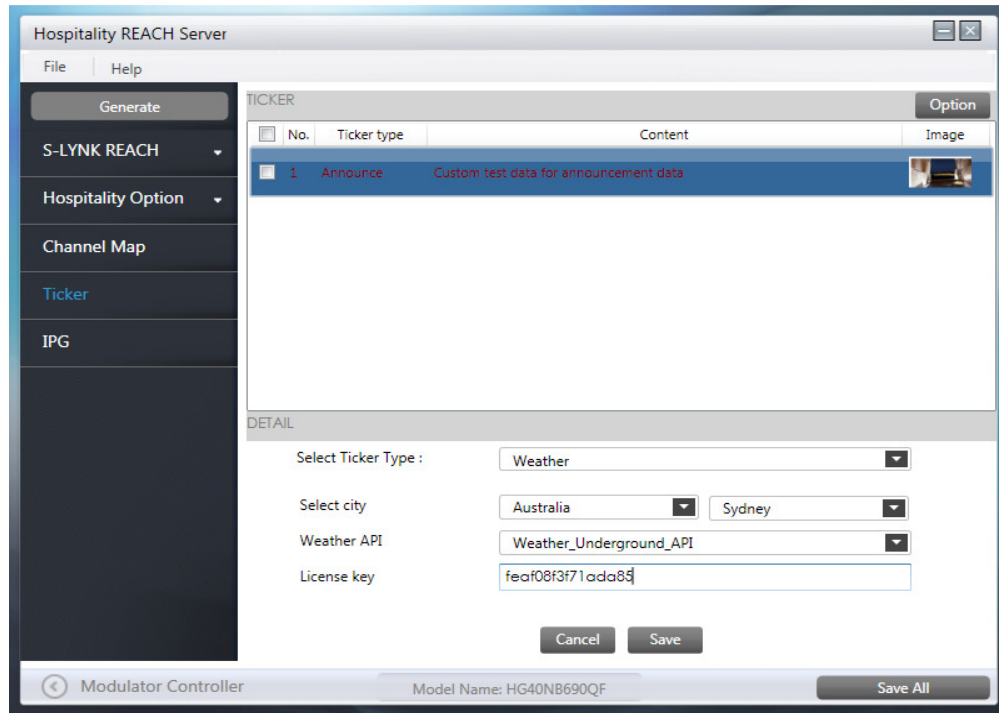
2. By default Announce Ticker Type option will be selected.  
Enter custom message (max length 256 chars) and for custom message user can upload any specific image (max size 20KB) for announcement



3. Click save button (add mode) to add announcement information in Ticker grid.

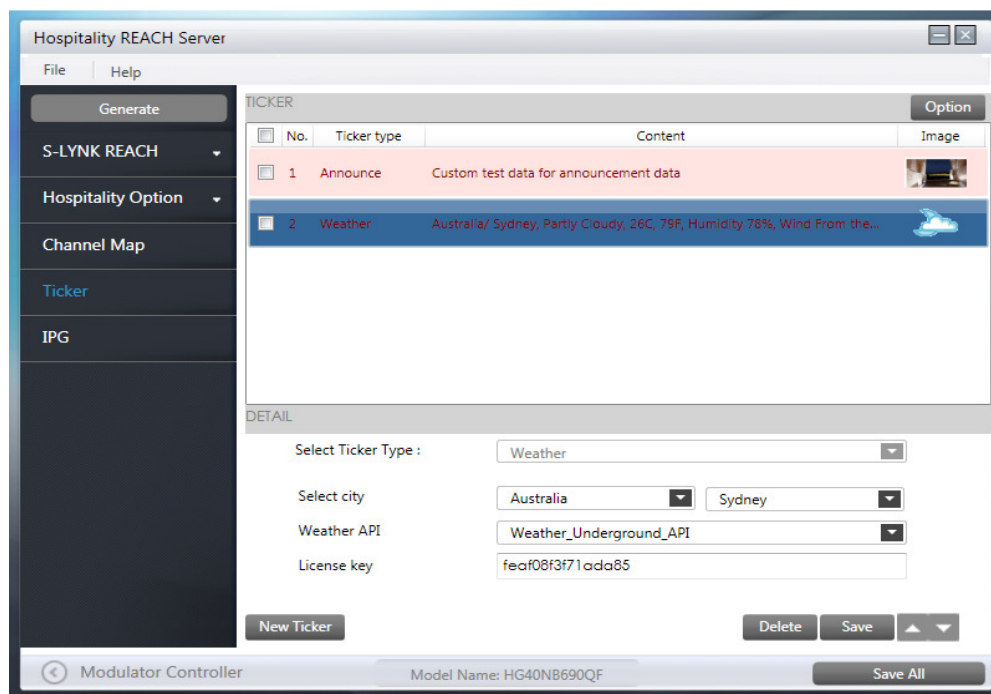


- To add Weather Information, user can click “New Ticker” button and select weather Ticker type. Select country/city along with Weather API and enter license key.

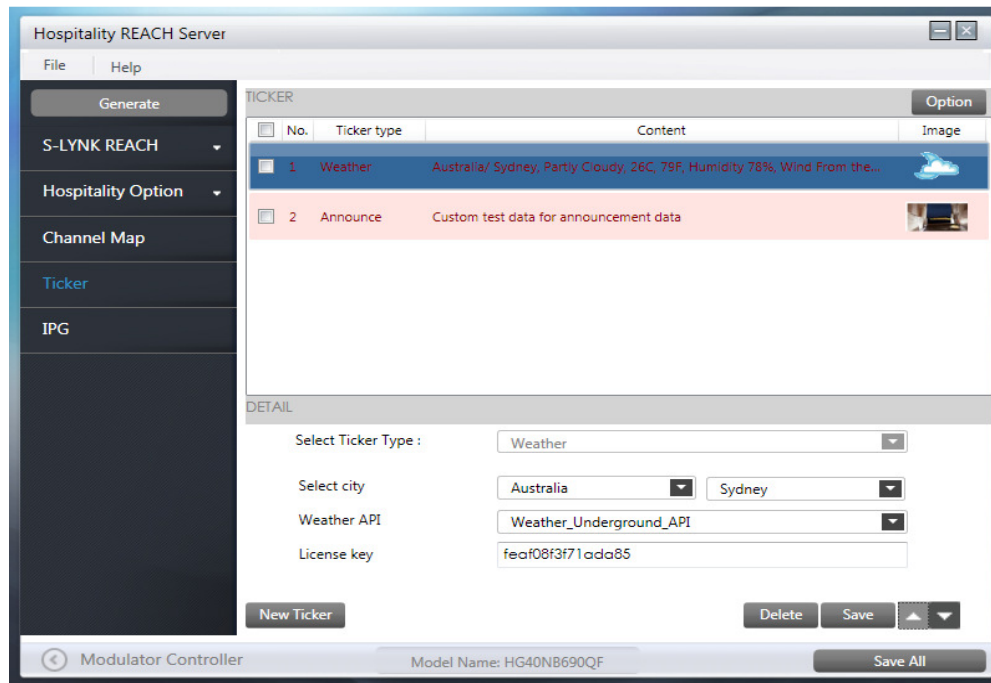


**Note: To register for weather API license key, kindly refer FAQs.  
Maximum 1 Weather and 4 announcements can be added in Ticker**

- Click save button (add mode) to add weather information in Ticker grid.

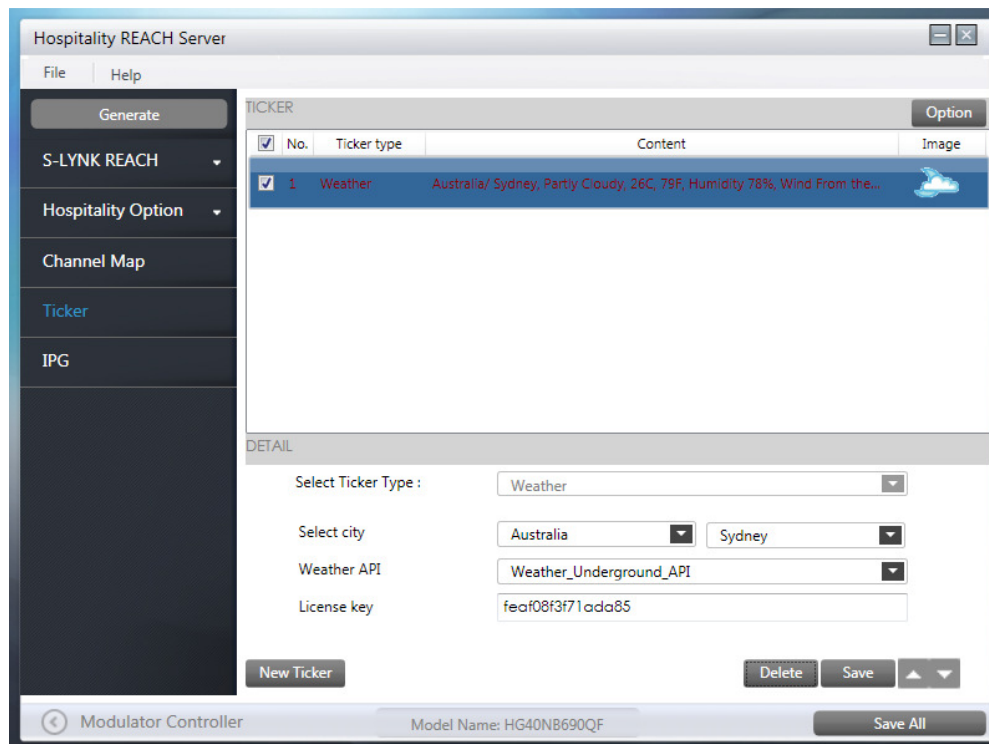
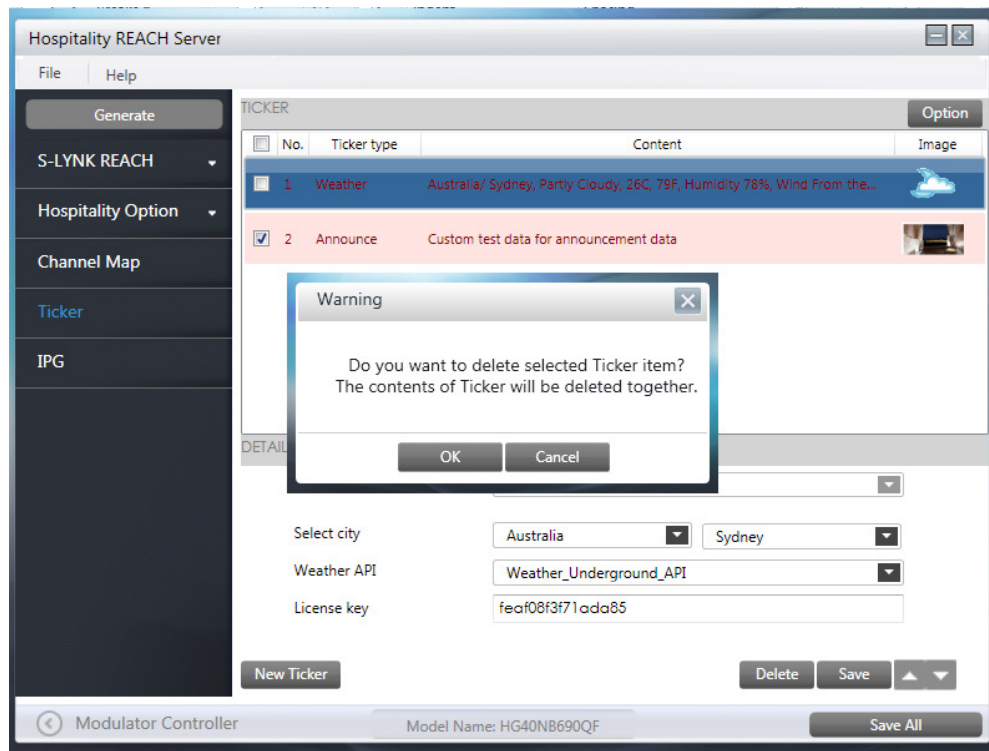


6. Click on any row (to select) and click Up arrow button, to move up the selected row. Same way user can click on down arrow button to move down the selected row.



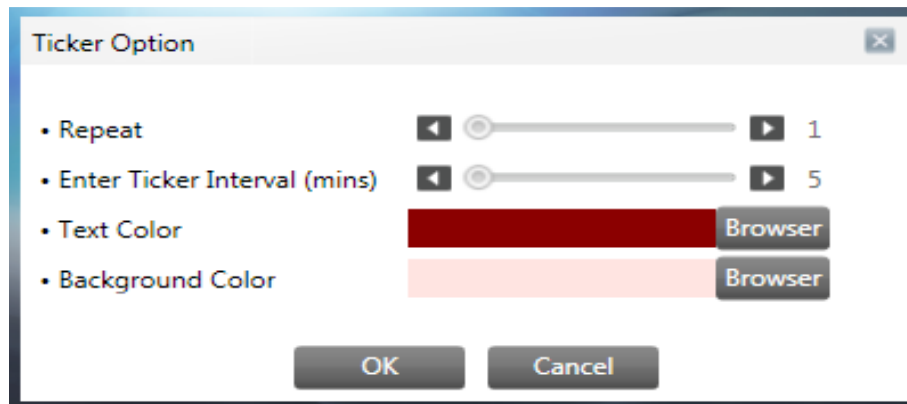


7. Select a ticker preview row (checkbox) and click on Delete button, to delete the selected row. It will ask for the confirmation to delete.





8. Click on Option button, to select Repeat time, Ticker interval, Text color and Background color.



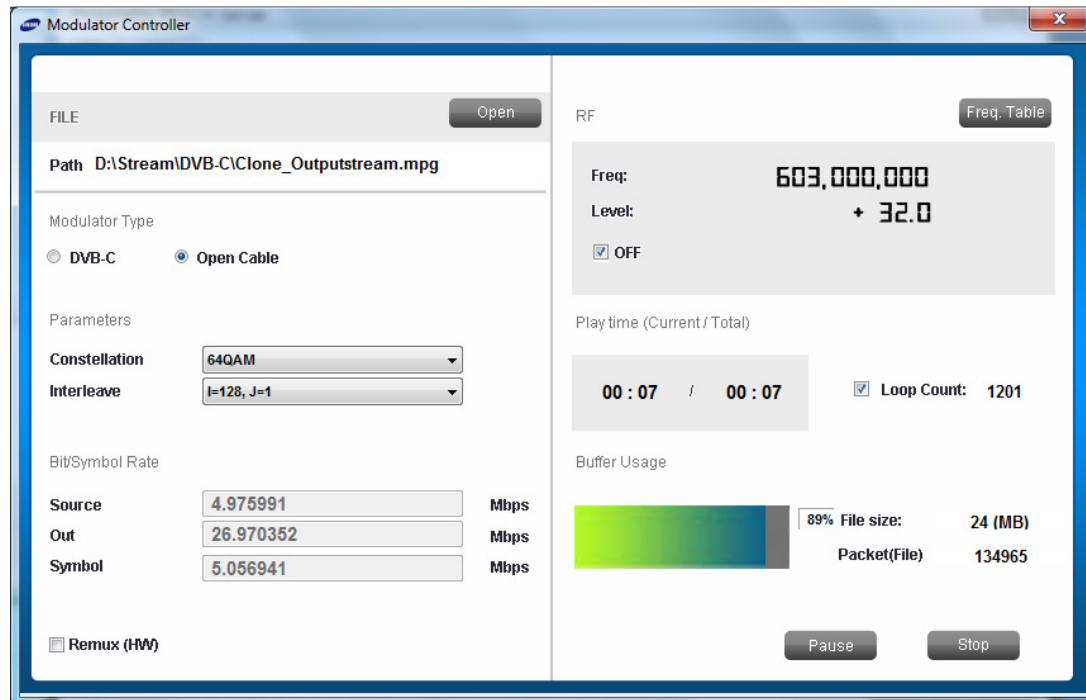
**Note:** Repeat option means, how many times ticker data will display.

Ticker Interval option means, after how long ticker data will display periodically.

## 4. FAQs

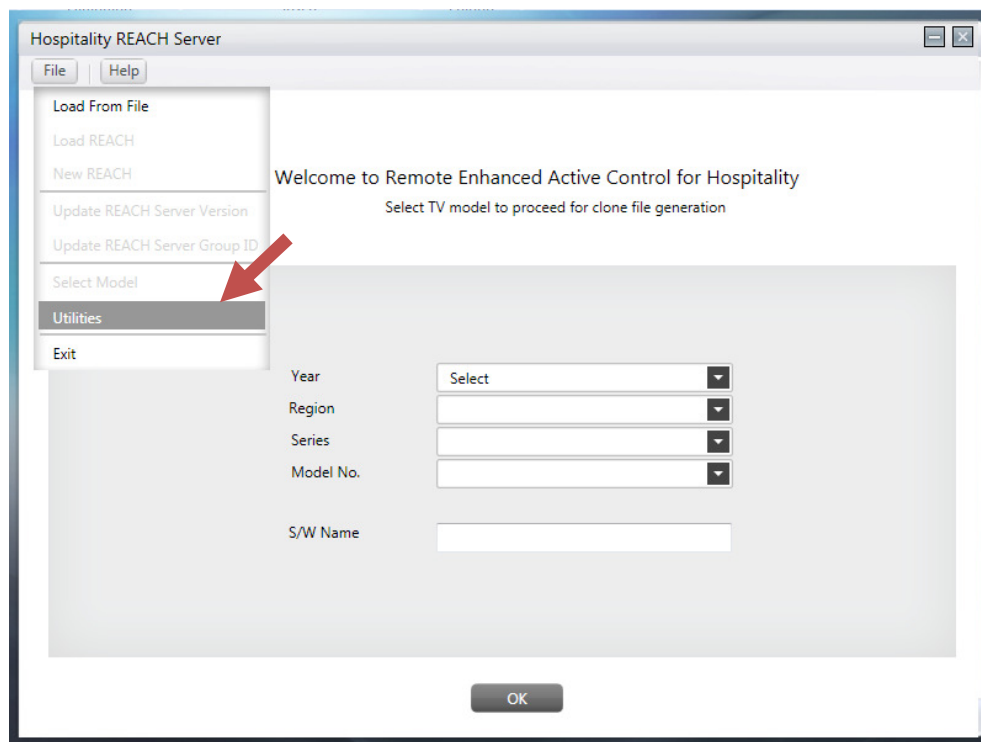
If REACH Server seems to have a problem, first review this list of possible problems and solutions.

### ▪ Test REACH Server modulator controller settings:

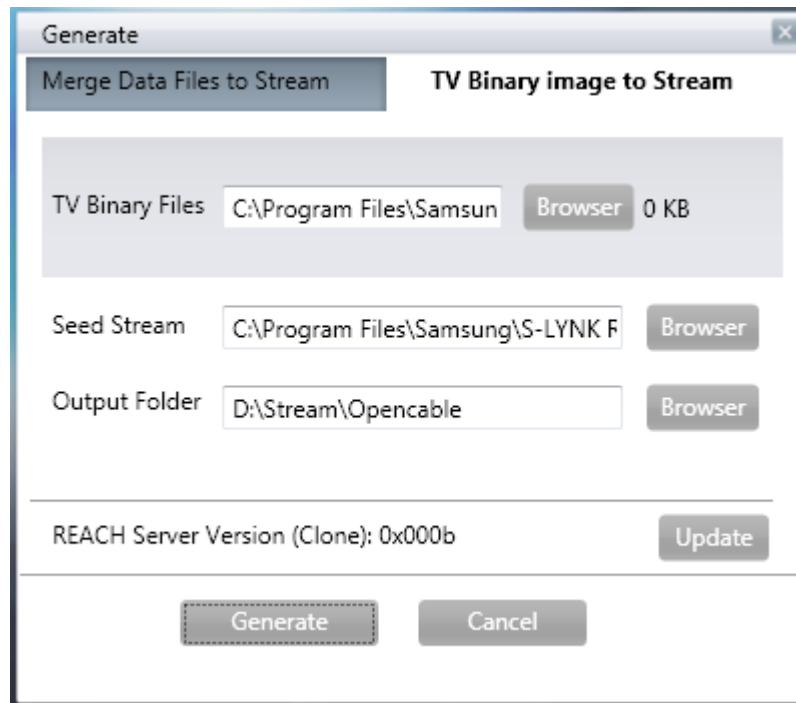


- The REACH Server upgrade only support Open Cable & DVB-C
- Recommended setting
  - Parameters Constellation: 64 QAM
  - Remux(H/W) : Off
- REACH Server Frequency will be matched REACH Server Channel of TV.
  - If you change frequency table, please refer the frequency table in REACH Server manual (Appendix A).
  - Set same channel in both REACH Server PC program and in TV. For ex. if you have empty 2channel (57MHz) in Hotel, set 2channel (57MHz) both REACH Server PC program and TV.
  - Default initial value : REACH Server 87 (603MHz), TV REACH Server Channel : 87
- Level value on changing from keyboard or mouse varies from 29.0 to 56.0
- Frequency value on changing from keyboard or mouse varies from 050,000,000 to 870,000,000
- Test version information while merging files into stream :
  - To merge clone files ensure while merging REACH Server clone version in REACH Server PC program must be greater than the REACH Server version stored in TV.

- To merge binary file ensure the binary merged into the stream has higher version than the binary already updated in TV.

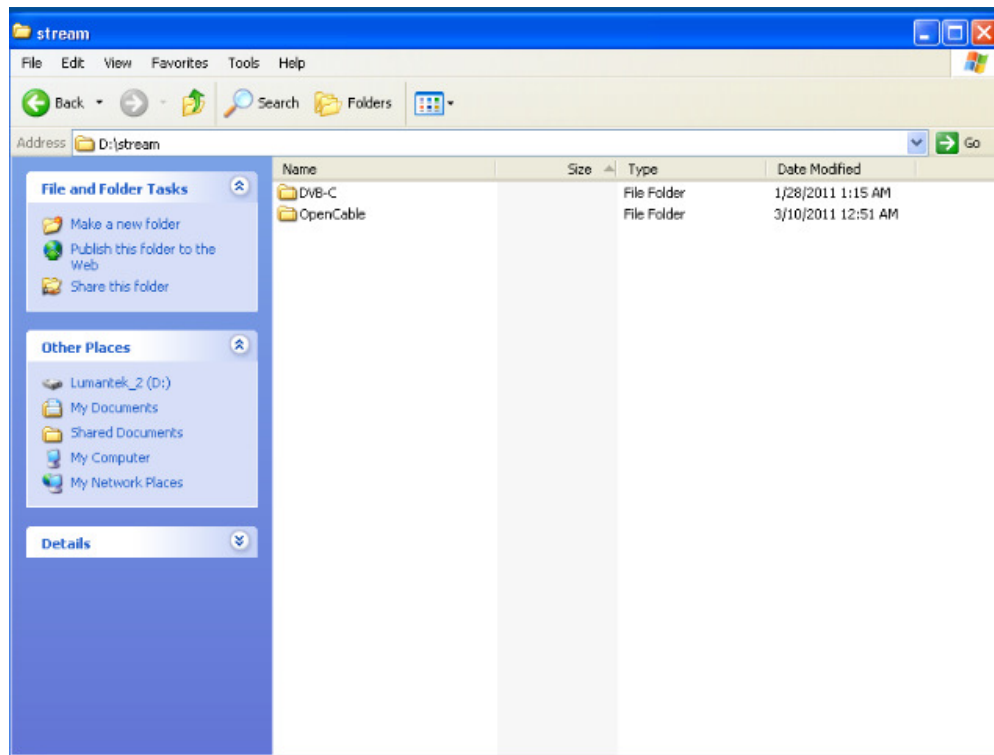


- TV REACH Server version must be less than REACH Server PC application value for update.
  - PC application: REACH Server Version (Clone): 0002, TV REACH Server Version: 0001. Update is possible. After update TV version will be set equal to REACH Server PC version, hence TV will be 0002.
  - PC application: REACH Server Version (Clone): 0002, TV REACH Server Version: 0002. Update is not possible.

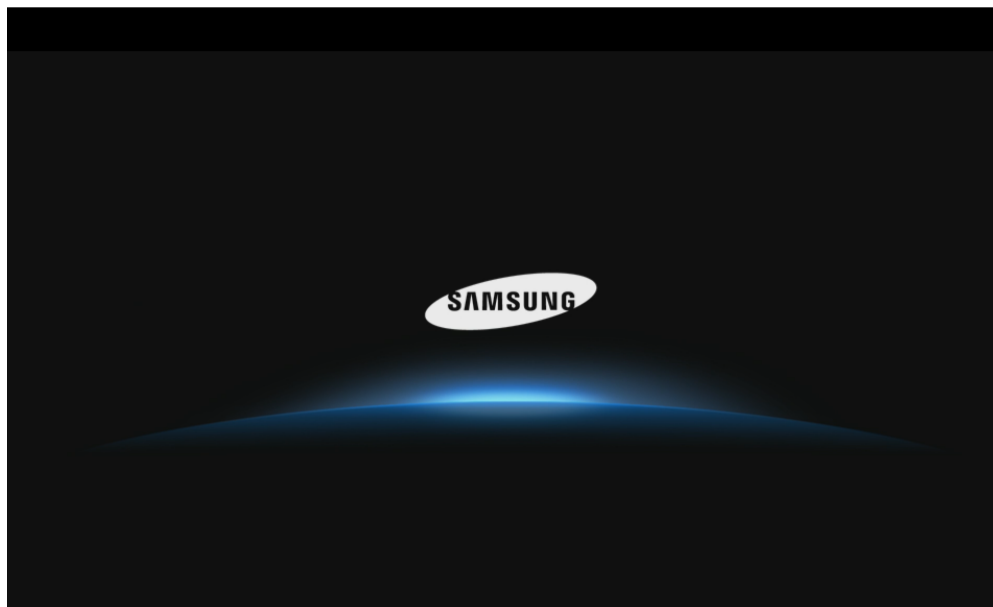


- Merge TV Binary: support to upgrade Main SW.
  - You need to contact to Samsung to have Merge TV Binary.
  - Merge TV Binary could not support to upgrade Sub Micom

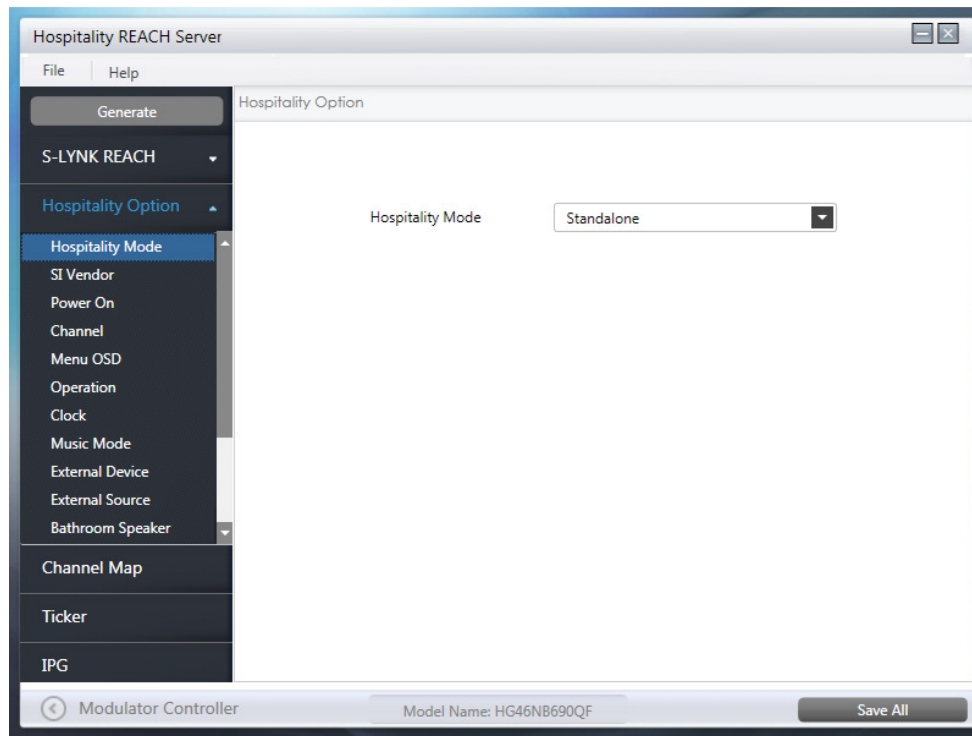
- **Merged TS Stream should be located in D:\stream\OpenCable(US) or D:\stream\DVB-C(EU)**



- **You can check displaying REACH Server merged stream if you tune REACH Server channel.**



- **Cautions for Hospitality mode options**



- Hospitality Mode: should be Standalone. – Interactive mode could not support REACH Server.
- In Hospitality "REACH Update Immediate" option has priority over "REACH Server Update Time" option. If "REACH Update Immediate" option is "On", "REACH Server Update Time" values will not be considered by the system. To use "REACH Server Update Time" option, "REACH Update Immediate" option should be "Off" and "REACH Server Update Time" should be other than "Off".
- Dynamic SI should be set 'Off' to modify DTV digital channel map in channel map tap.

▪ **Which all TV broadcasting standard supported by REACH Server application?**

REACH Server application support only ATSC and DVB.

▪ **How to add channels for DVB /ATSC?**

Select particular TV region and model no. On basis of these parameters, application allows to add channel for DVB (for EU) or ATSC (for US). Please refer section 2.7.

▪ **What all broadcasting type REACH Server Modulator supports?**

REACH Server modulator support only DVB-C (for DVB) and Open-Cable (for ATSC) standard for broadcasting.

▪ **What is difference b/w Channel in channel map and Channel configured in REACH Server modulator?**

Channels in Channel Map are used to watch channel on TV. We can add more than one channel in channel map. It is in form of clone data and transfer using seed stream. On the other hand Channel configured in REACH Server modulator is used for broadcast data (clone or binary) from modulator with fixed frequency or channel number. This same channel number is used on TV named as REACH Server channel for software update. (Please refer Appendix A).

- **Recommended PC resolution, to run REACH Server Software:** 1280x1024 or 1280x960.
- **S-LYNK REACH Software supports only Windows 7 (32 bit).**
- **How to Register for Weather License Key?**
  - To register for free weather API license, kindly go through with the following URL and sign up for API key.

(1) Weather Underground API

<http://www.wunderground.com/weather/api/>

(2) Weather Bug API

<http://developer.weatherbug.com/member/register>

## 5. APPENDIX A

Table A.1

Channel PTC-frequency map Table (Cable STD (J.83B) - Open Cable)

<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>
1	75	31	267	61	447	91	627	121	777
2	57	32	273	62	453	92	633	122	783
3	63	33	279	63	459	93	639	123	789
4	69	34	285	64	465	94	645	124	795
5	79	35	291	65	471	95	93	125	801
6	85	36	297	66	477	96	99	126	807
7	177	37	303	67	483	97	105	127	813
8	183	38	309	68	489	98	111	128	819
9	189	39	315	69	495	99	117	129	825
10	195	40	321	70	501	100	651	130	831
11	201	41	327	71	507	101	657	131	837
12	207	42	333	72	513	102	663	132	843
13	213	43	339	73	519	103	669	133	849
14	123	44	345	74	525	104	675	134	855
15	129	45	351	75	531	105	681	135	861
16	135	46	357	76	537	106	687		
17	141	47	363	77	543	107	693		
18	147	48	369	78	549	108	699		
19	153	49	375	79	555	109	705		
20	159	50	381	80	561	110	711		
21	165	51	387	81	567	111	717		
22	171	52	393	82	573	112	723		
23	219	53	399	83	579	113	729		
24	225	54	405	84	585	114	735		
25	231	55	411	85	591	115	741		
26	237	56	417	86	597	116	747		
27	243	57	423	87	603	117	753		
28	249	58	429	88	609	118	759		
29	255	59	435	89	615	119	765		
30	261	60	441	90	621	120	771		



Table A.2

Channel PTC-frequency map Table (Cable (DVB-C\_256QAM ) )

<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>	<i>CH</i>	<i>Freq.</i>
01	114	31	354	61	594	91	834
02	122	32	362	62	602	92	842
03	130	33	370	63	610	93	850
04	138	34	378	64	618	94	858
05	146	35	386	65	626	95	866
06	154	36	394	66	634		
07	162	37	402	67	642		
08	170	38	410	68	650		
09	178	39	418	69	658		
10	186	40	426	70	666		
11	194	41	434	71	674		
12	202	42	442	72	682		
13	210	43	450	73	690		
14	218	44	458	74	698		
15	226	45	466	75	706		
16	234	46	474	76	714		
17	242	47	482	77	722		
18	250	48	490	78	730		
19	258	49	498	79	738		
20	266	50	506	80	746		
21	274	51	514	81	754		
22	282	52	522	82	762		
23	290	53	530	83	770		
24	298	54	538	84	778		
25	306	55	546	85	786		
26	314	56	554	86	794		
27	322	57	562	87	802		
28	330	58	570	88	810		
29	338	59	578	89	818		
30	346	60	586	90	826		

**China Region**

**Note:** Broadcasting in china region will work from channel 45 to 95 and it will not work from 1 to 44 due to DVBC frequency differences in EU region.