



## Live TV

The digital signage software *FrontFace for Public Displays* and the interactive kiosk software *FrontFace for Touch Kiosks* can be extended by plugins that add additional functionality. This way you can e.g. display special content types, integrate external data sources or systems and add entirely new features to the software.

### Description:

The Live TV Plugin for *FrontFace* allows you to integrate a live TV signal into your *FrontFace for Public Displays* playlists or *FrontFace for Touch Kiosks* menus. The open source software MediaPortal is used as TV server here. This manual describes the necessary steps for watching TV with *FrontFace*. The MediaPortal TV server can also be installed on another PC than the player PC / kiosk PC since the actual TV program is transferred as a stream over the network. This is especially useful if no TV tuner card can be installed in the player PC / kiosk PC or if you want to serve multiple player PCs / kiosk PCs with a single TV server.

**Notice:** This plugin requires the use of *FrontFace for Public Displays 3.6.9* or higher or *FrontFace for Touch Kiosks 2.0.4* or higher!

### Installation:

Please refer to the user manual of *FrontFace for Public Displays* or *FrontFace for Touch Kiosks* on detailed information on how to install a plugin.

**Important:** During the installation of the plugin in the *Display Assistant* or *Kiosk Assistant* you will be promoted to save the accompanying files of the plugin at a location of your choice. You must select **YES** here since the accompanying files do not only contain this PDF manual but also the TV server plugin for the MediaPortal TV server ("**MediaPortal TV Server Plugin.dll**") which is required in the following steps!

**Notice:** If you have previously downloaded and installed the trial version of the plugin, you have to install the full version over the existing trial version in order to get the full version running. The procedure is exactly the same as for installing a new plugin. If you already used the trial version of plugin in your project, all settings will remain after installing the full version!

## Step 1: TV Server Installation:

**Notice:** The TV server does not have to be installed on an extra computer; it is also possible to install the TV server on the player PC / kiosk PC.

- 1.) Install the TV tuner card (internal or external) and the necessary drivers.
- 2.) [Download the MediaPortal TV server](#) (**Please make sure that you choose version 1.x!**) and install it:
  - a. If you are already familiar with setting up the MediaPortal TV server, choose "**Custom Installation**" and select the option to only install the TV server ("**MediaPortal dedicated TV server**").
  - b. Otherwise we recommend to select the full installation of MediaPortal so that you can also test your TV channels using the MediaPortal client before actually configuring the plugin in the *Display Assistant* or *Kiosk Assistant*.
- 3.) Open the command prompt ("**cmd.exe**") with full administrative rights and execute the following command where you replace "**USERNAME**" with the name of the Windows account under which the TV server is run on the PC:

```
netsh http add urlacl url=http://+:8066/tvserver user="USERNAME"
```

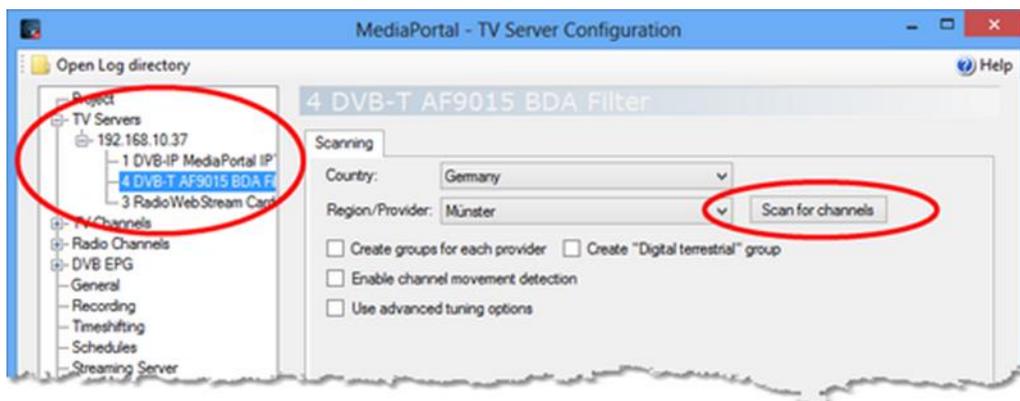
- 4.) Copy the *FrontFace* TV server plugin "**MediaPortal TV Server Plugin.dll**" into the folder for plugins of the MediaPortal TV server:

```
C:\Program Files (x86)\Team MediaPortal\MediaPortal TV Server\Plugins\
```

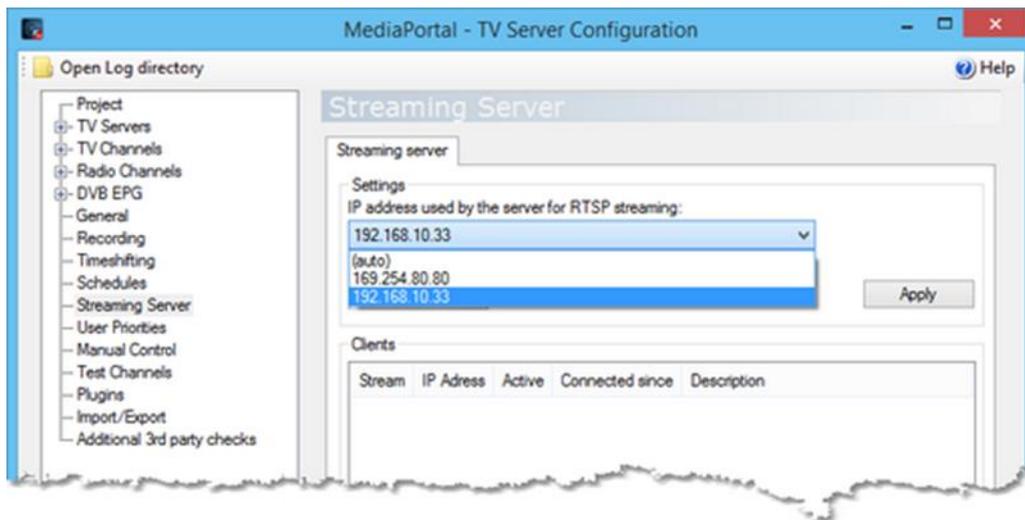
Now open the "**Media Portal TV Server Configuration**" and activate the plugin by selecting from the menu tree on the left the menu item "**Plugins**" and check marking the entry "**mirabyte FrontFace TV Server Plugin**". Then restart the TV server by going to "**Manual Control**" in the menu tree on the left and clicking on "**Stop Service**" and after that on "**Start Service**".

- 5.) Now configure the TV server:

- Select "**TV Servers**" > "**IP ADDRESS/NAME OF SERVERS**" in the tree and select your TV tuner card and start the scan for channels. Please wait until the scan has been completed.



- Also make sure that you explicitly enter the IP address (!) of the TV server instead of the default value "**(auto)**" in the "**Streaming Server**" configuration dialog. Otherwise the stream will not work.



## **Step 2: TV Client Installation (on the player PC):**

**Notice:** These steps also apply for the PC on which you use the *Display Assistant* or *Kiosk Assistant* in case you want to use the preview feature to see the live TV signal.

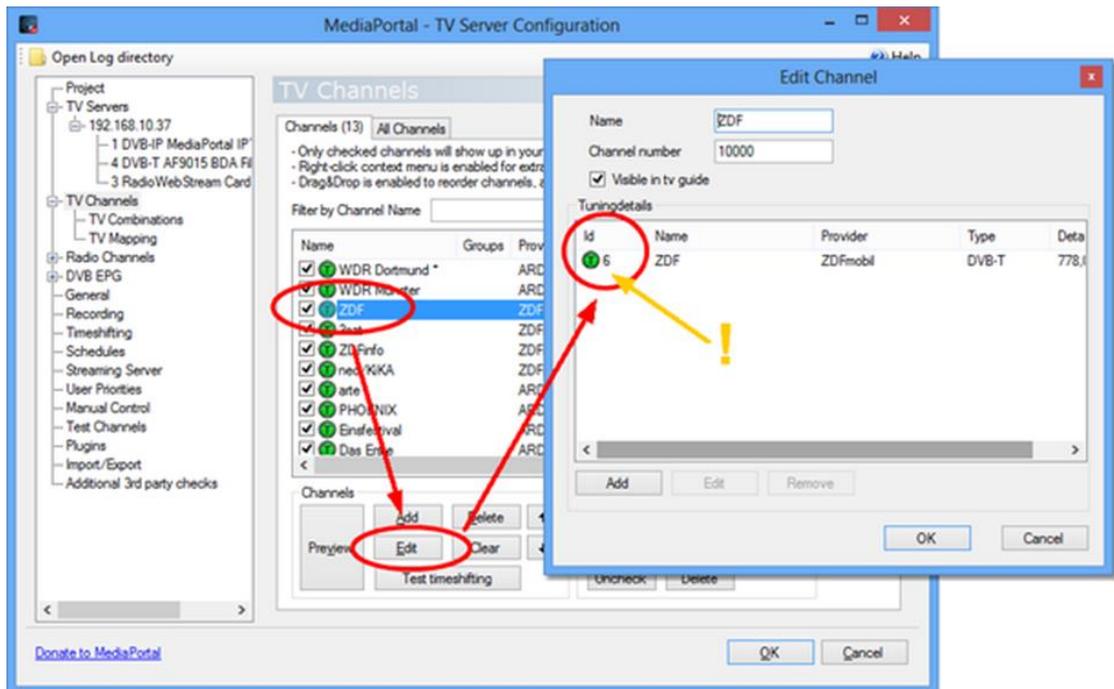
- 1.) [Download the LAV filters](#) and install them.
- 2.) Open the "**LAV Video Configuration**" and select under "**Hardware Acceleration**" > "**Hardware Decoder to use:**" the option "**DXVA2 (native)**" in order to activate the hardware acceleration. In case you suffer problems with the TV signal or in case the CPU usage is too high, you can also select "**NVIDIA CUVID**" if you have an nVidia graphics card or "**Intel Quicksync**" if you have an intel-powered graphics adapter.

In all other cases, especially when using a very old graphics adapter by nVidia/ATI which does not support CUVID or DXVA2, please select "**None**". This means that no hardware acceleration is used which produces more load for the CPU!

**Hint:** In case your graphics adapter supports CUVID or DXVA2, the drop-down menu will show an "**Available**" notice next to it.

## **Step 3: Using the MediaPortal Live TV Plugin the the *Display Assistant* / *Kiosk Assistant*:**

- 1.) Open the project in the *Display Assistant* / *Kiosk Assistant* and add the plugin "Live TV" to a playlist page (*FrontFace for Public Displays*) or a menu button (*FrontFace for Touch Kiosks*) of your choice.
- 2.) In the plugin configuration dialog, please enter the IP address of the TV server and the channel id of the TV channel you want to show.
  - The channel id on the TV server can be determined by opening the "**Media Portal TV Server Configuration**" of the TV server. Then go to "**TV Channels**" and select the desired station from the list of all available TV channels and click on "**Edit**". In the next dialog you can pick up the channel id which is shown in the "**Id**" column.



**Notice:** In case you have installed both the TV server and the *FrontFace* player application / kiosk application on the same computer, you still have to enter the IP address of this PC here!

**Typical pitfalls and solutions:**

First, a general recommendation: **Go through the setup systematically, step-by-step!** In case you do not see a TV signal on the screen of the player PC please check first if the "Media Portal TV Server Configuration" does receive a signal ("Manual Control" -> "Start Timeshift" for the specific channel). If this is the case please test the MediaPortal Client (Start MediaPortal Client > Select TV > Open channel list by pressing **ENTER** and selecting a channel) or use the "Preview" feature of the "MediaPortal TV Server Configuration" (Warning: Here, the LAV filters are not necessarily used - instead those Codecs to which the system has assigned a higher priority ("MERIT") are used which means that even though you get a signal there can still be a problem!). If the TV signal is received correctly, please check in the last step if the Live TV Plugin of *FrontFace* can receive the signal as well.

**Notice:** If you face any issues, please also check the log files of MediaPortal ("C:\ProgramData\Team MediaPortal\MediaPortal\log\" and "C:\ProgramData\Team MediaPortal\MediaPortal TV Server\log\") as well as the logs of *FrontFace for Public Displays* ("C:\ProgramData\mirabyte\FrontFace for Public Displays\FrontFace.log.txt") or *FrontFace for Touch Kiosks* ("C:\ProgramData\mirabyte\FrontFace for Touch Kiosks\log.txt").

**Possible sources of problems in case the time shifting in the MediaPortal Server Configuration fails:**

- Check if the TV tuner card is wired up correctly.
- Check if the TV tuner card was installed correctly (drivers).
- Check if the TV tuner card is detected by the MediaPortal TV server.

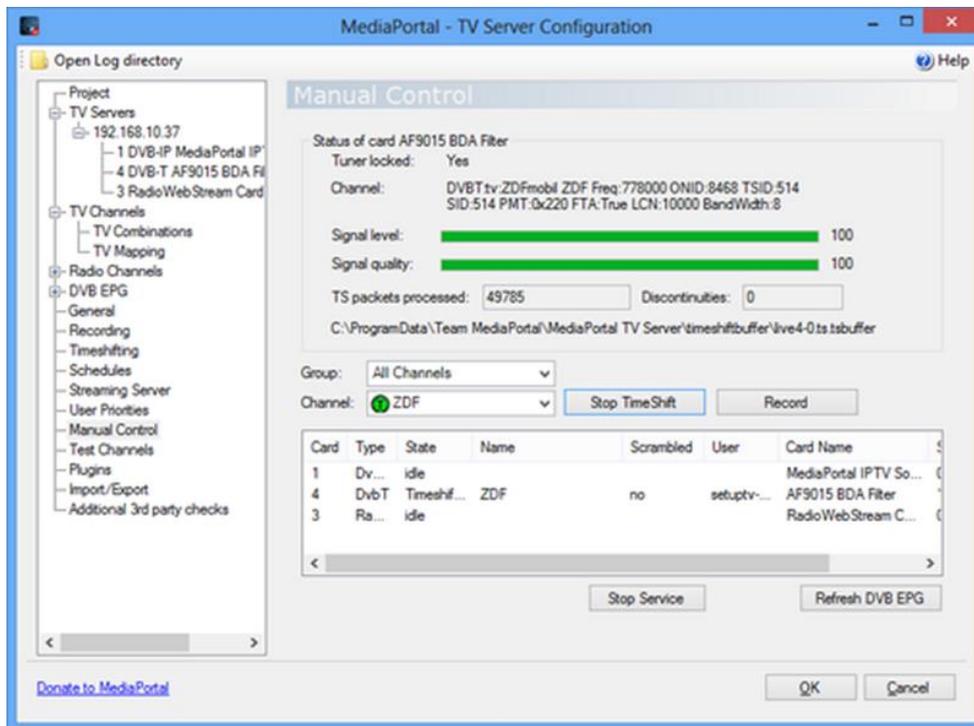
- In case a TV channel is encrypted make sure that the CAM module is installed correctly and that the SmartCard is installed correctly and that the TV channel is available with this card. Additionally, you have to enable the CAM module under "**TV Servers**".
  - Run a scan for channels and make sure that everything is configured correctly.
  - Please make sure that the TV server is getting a TV signal from the TV tuner card.
- Open "**Media Portal TV Server Configuration**" and select "**TV Channels**". Now select a channel and click on "**Preview**". Alternatively, you can select "**Manual Control**" and start the "*TimeShift*" feature for a channel of your choice. This allows you to see the signal strength and signal quality of the selected channel. Please make sure that you disable the "*TimeShift*" feature after your test!

**In case the TV signal is not shown in the MediaPortal Client:**

- Make sure that the LAV filter is installed correctly.
- Please ensure that the speakers are plugged in because otherwise MediaPortal prevents playback in this case by default (however this can be changed in the MediaPortal configuration).
- While a channel is selected in MediaPortal you can press **SHIFT+1** in order to enable a diagnosis overlay which allows you to check e.g. the usage of the correct filter.

In case no TV signal is shown by the *FrontFace Player Application / Kiosk Application* the following aspects might be helpful:

- Check any verify the general network connectivity between player PC / kiosk PC and TV server. Check the IP address and make sure that no firewall blocks the relevant port(s) on the player PC / kiosk PC and on the TV server.
- Make sure that you have entered the correct channel id in the plugin configuration dialog.



In case the live TV signal flickers or breaks down from time to time:

- A cable-based network connection is usually better than a wireless network (unless you run the TV server and the *FrontFace Player Application / FrontFace Kiosk Application* on the same PC!). If only a wireless connection is possible, make sure that your network adapter supports IEEE 802.11n (WLAN-N, 300 MBit/s). The network has to allow the playback of HD TV signals, with a throughput of 20-30 MBit/s.
- Make sure that all drivers are up-to-date, and that hardware acceleration is enabled.
- Disable the EPG grabbing because it is not needed any may cause performance issues (disable **MediaPortal TV Server Configuration -> DVB EPG -> "EPG Grabbing while timeshifting/recording"**).
- Make sure that you have a graphics card adapter that is powerful enough and which supports hardware acceleration for video playback. You should also install the latest drivers for your graphics cards adapter. Finally, the LAV filters should be installed and configured correctly to reduce the load for the CPU to a minimum.

General help on MediaPortal and on setting it up is available in the [MediaPortal Wiki](#) and in the [MediaPortal Forum](#). A list of supported TV tuner cards is also available on the [MediaPortal Website](#).

## Help and Support:

If you need help or technical support when using this plugin or the *FrontFace* software, you can contact our support. For more information, please visit: <http://www.mirabyte.com/en/support/>