



Configuring and Using the ZvShow Channel

About the ZvShow Channel

The ZvShow Channel is an “extra” channel that you configure on most of the HDbridge 3000, 2000 or ZvPro lines, (ZvShow is not available on composite or IP streaming models). This channel is available in addition to the channels already offered on the unit. The content for the video on this channel comes from a video stored locally on the ZeeVee product or added to an SD card inserted into the ZeeVee Product (not available on all models). The video is played and looped onto the new ZvShow Channel continuously.



The user loads a video clip in the proper format (.zvc) in to an internal on-board storage or an SD card (not available on all models). That video clip is encoded and played just as if it had come from an external video source.

Common uses for the ZvShow Channel

The videos running on the ZvShow channel are typically very simple, signage-like video clips (about 5 minutes in duration), used for the following purposes:

- Menus
- Commercials
- Barker channels – commercial establishments

Type of video for the ZvShow Channel

The ZvShow function only accepts video files that have been converted using the ZvConvert tool. These files end with a '.zvc' extension. The files are played out continuously. The ZvShow channel is a sub-channel of the first configured RF channel and is simply added as another logical channel to the existing lineup.

There is some flexibility in the content and quality of the video that the channel permits. Note that the bandwidth is shared between the active encoded channel from a video source and the ZvShow channel. If the bandwidth of the loaded video is sufficiently large, it can compromise the video playback on the companion program(s).

The internal storage capacity of the ZeeVee HDb2000 and ZvPro units is roughly 250MBytes. A video file cannot exceed that limit to be usable in the ZvShow application. The maximum file size when using the SD card slot on the HDb2000 or ZvPro, as well as memory on the HDb3000 units is 4GB.

Channels available for multiple ZeeVee units

Each ZeeVee HDb2000 or ZvPro product deployed can generate one ZvShow channel. For example, a head end consisting of six HDb2640 units would have up to six where each card in the HDb3000 chassis can generate one ZvShow channel, so a chassis with six cards would have up to six ZvShow channels available ZvShow channels available for looped video content on new channels; one from each unit. These ZvShow channels are disabled by default, so will not show up in a channel lineup until they are enabled.



Using ZvShow

To use the ZvShow functionality the user needs to follow a simple sequence of steps:

1 Generate a Video File – There are a number of tools available for generation of video that can be converted to the .zvc format. ZeeVee does not develop, manufacture or endorse any of those tools. Some example file formats accepted by the ZvConvert tool include .MP4 (Mpeg4 or avchd), .WMV (Windows media file), and MOV (QuickTime). Please note, standard image files (.bmp, jpeg, png, etc) are not supported by ZvShow, it must be a video.

2 Convert a Video File – Once a video file has been created, it must be converted to the proper format. ZeeVee offers a conversion tool for this purpose called ZvConvert. You can download the tool from our website here <http://www.zeevee.com/zvshow>. Instructions for using the ZvConvert tool can be found later in this document.

3 Upload file to ZeeVee Unit – Once generated, the file must be loaded in to the ZeeVee unit that will be sourcing the channel. This can easily be done through the ZvShow tab in Maestro, the ZeeVee web management tool. If using an SD card, simply copy the file directly to the card and insert it into the ZeeVee unit.

4 Configure Channel Lineup – Through the Channel Plan tab in Maestro, configure the new ZvShow channel on the appropriate logical channel (Channel#). Exact placement of the channel depends on how you want the desired presentation order to appear to the TV viewer.

5 Enable ZvShow Channel – Once the ZvShow channel has been configured, enable it via the Channel Plan tab in Maestro, so the program will be sent out via the appropriate RF channel.

6 Scan HD Televisions – Most digital HD televisions require a full channel scan to pick up and display newly added channels, especially new digital sub-channels.

Converting a Video File with ZvConvert

The ZvShow Channel will only accept a video file that has been converted using the ZvConvert tool. The converted file must match the maximum resolution of the ZvPro or HDbridge2000 specifications. For example, a file for an HDbridge2540 must not be higher than 720p. The ZvConvert tool assists you in specifying appropriate settings.

The steps for converting a video file with ZvConvert are as follows;

- Download and install ZvConvert
- Convert file
- Manage file bandwidth

Download and install ZvConvert

1. First, download and install ZvConvert. It can be found at www.zeevee.com/zvshow. Please note – the version of ZvConvert must match the firmware revision of your unit, more information is found under the Resources section.
2. After installation, launch ZVC.

Depending on your browser you may be prompted to run the file, which will start the installation of the program. If you only have the option to save, then save the file locally and then double click the downloaded file to start the installation. From there follow the prompts to install ZvConvert (ZVC).

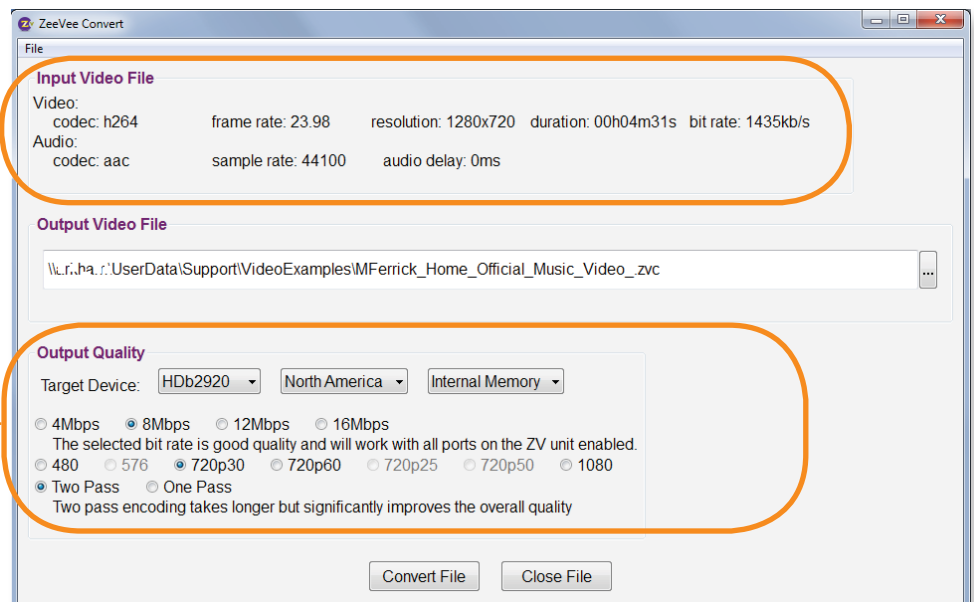
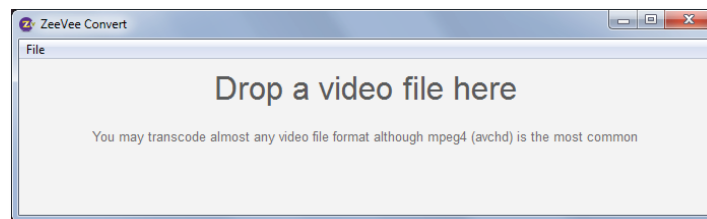
Use ZvConvert to convert the video file

Once ZvConvert is installed and running, take the following steps:

1. Load the file to be converted by dragging and dropping the video file into the interface or by clicking the File menu and selecting **Open Transport Stream File**, then browsing to the video file.

After loading the file to be converted, ZVC will show general information about the video at the top of the window, including frame rate length and bit rate.

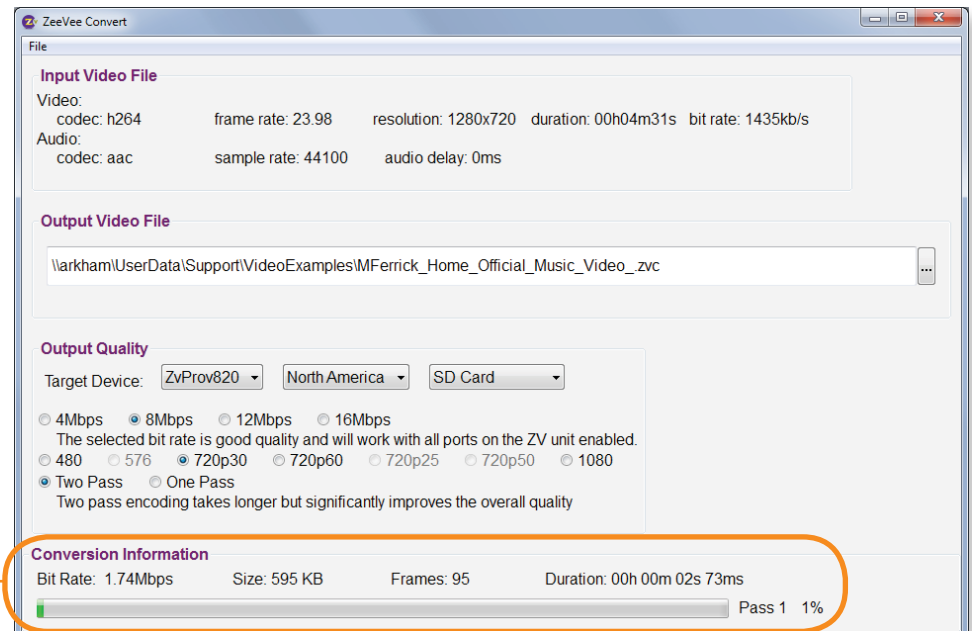
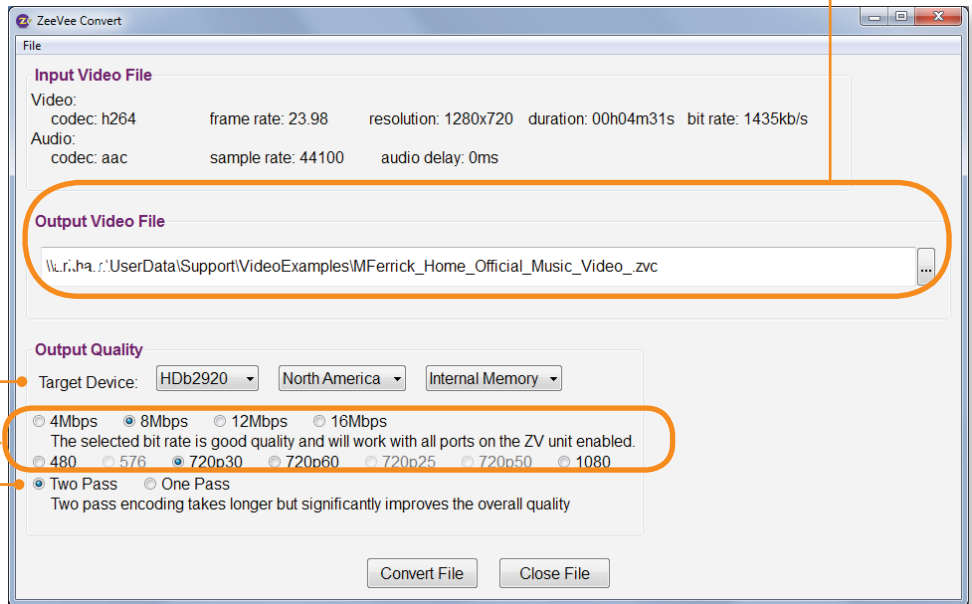
The bottom of the window will show the configuration options.





The ZVC file will default to be saved in the same location as the original file and with the same name but with a “.zvc” extension, this can be changed by editing the area titled **Output Video File**.

2. Under the **Target Device** section
Select the ZeeVee device where the file will be uploaded, including the region (North America or European). Knowing the device determines the limits for resolution and bandwidth. For example, selecting the HDb2640 will allow resolutions up to 1080, where selecting HDb2540 will limit the video resolution to 720. Be sure to also specify if the file will be uploaded to Internal Memory, or used with an SD card (for HDb3000, select SD card to allow for maximum file size). This will affect the limits of file size allowed.
3. Specify the bit rate and resolution for the file conversion. The bit rate controls the video quality of the converted file. Typically the higher the bit rate, the better the video quality. *Remember that the ZvShow channel will be sharing bandwidth from an existing RF channel. If the bit rate is set too high you may affect video quality of both channels. See the Manage file bandwidth section for more details.*
4. Specify the type of encoding as One pass or Two Pass. This selection can also affect the video quality. We recommend using the Two pass option, which will take longer, but provides better video quality.
5. Click the **Convert File** button once all configurations are set. The conversion will start and a progress bar displays to show the status of the conversion.



The size and bit rate of the video file will directly affect the length of time for the conversion.

Manage file bandwidth

As mentioned, the ZvShow channel shares the bandwidth from an already-existing RF channel. For this reason, it is important to manage the bandwidth of the video being played by ZvShow and video on Input 1 of the unit.

If video issues such as stutter or dropped frames occurs on the ZvShow or shared RF channel, we recommend lowering the bit rate on the ZvShow video or moving your video sources so the video on Input 1 is not fast motion or high density video.

Recommended ZvShow Bandwidths	
Product	ZvShow Bandwidth
HDb2640/HDb2620	8Mbits/second or lower
HDb2540/HDb2520	8Mbits/second or lower
HDb2380/HDb2312	4Mbits/second
HDb2840/HDb2920	8Mbits/second or lower
ZvPro Products	8Mbits/second or lower

Uploading a Video File

Once a video file has been created, you need to upload it to the ZeeVee unit for playback on the ZvShow channel.

To upload the video, the following specifications and instructions need to be satisfied:

- The ZvConvert file cannot exceed 250MB, (except HDb3000, that limit is 4GB).
- The ZeeVee unit must be running firmware <1.9.2> or higher. For information on updating firmware please go to the firmware section under technical support <http://zeevee.com/support/>.
- The ZeeVee unit must also be configured for the default “Double QAM” mode. This is done under advanced controls on the RF tab in Maestro.
- The ZeeVee unit must be connected to the same network and accessible to the PC or device containing the file to be uploaded.
- Log in to the ZeeVee unit and type the IP address of unit in the browser (IP address is found on the Front Panel Display of unit).

Upload the file using the Maestro interface:

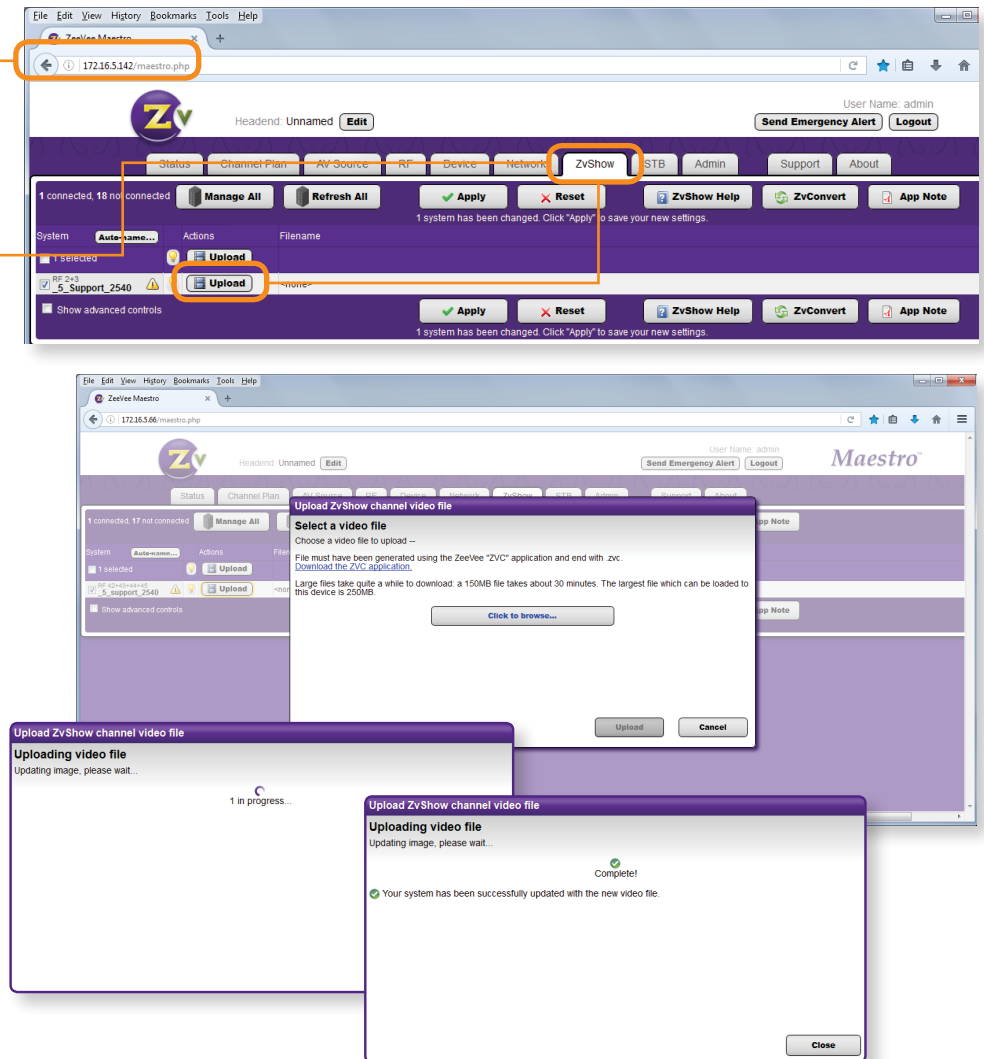
1. Log in to the ZeeVee unit and type the IP address in the browser. The IP address is found on the Front Panel Display of the unit).
2. Click on the ZvShow tab and click the upload button.

A popup will appear prompting for the location of the media file to be loaded in to the ZeeVee product for use by the ZvShow player option:

3. Press the **Click to browse...** button and then select a video file from your computer and click the file button to begin the upload.

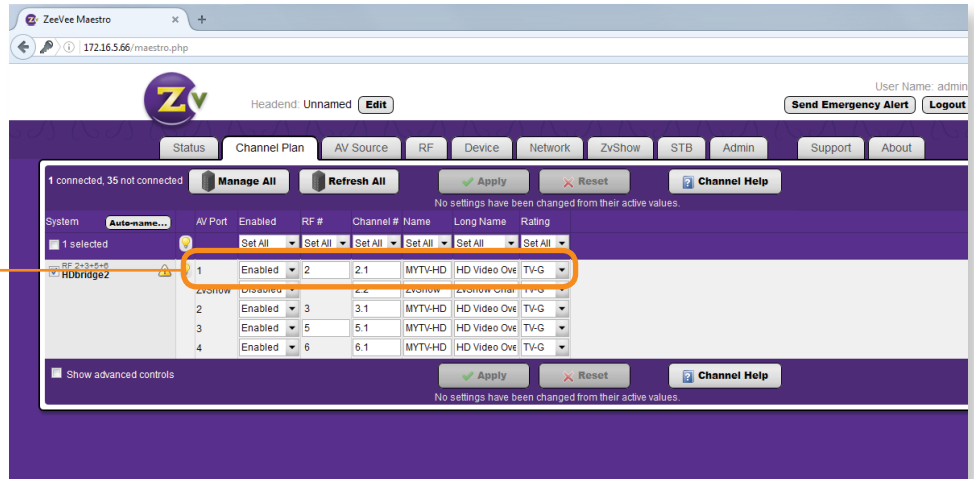
The progress window may linger for several minutes depending on the size of the file to be uploaded. Do not close your browser or reboot the system during the upload operation or the media file will be corrupted. Completion is indicated with a dismissal window at the end of the upload operation.

Note: With the HDb2000 and ZvPro units if an SD card is inserted in the ZeeVee unit, the uploaded ZvC file will be saved there instead of internal memory. If the ZvC file is very large (more than 500mb), we recommend using a PC to transfer the file to the SD card directly instead of through Maestro.

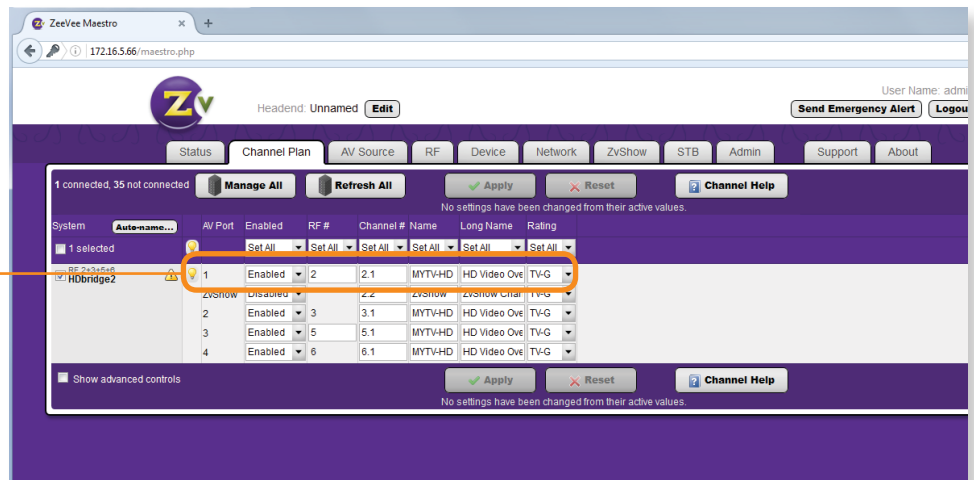


Enabling ZvShow and configuring channel lineup

To enable the ZvShow program so that it is broadcast as part of the channel lineup, the channel numbering must be structured appropriately. The ZvShow channel will appear as the last sub-channel for the first RF#.



You can configure the channel numbers so that the ZvShow program appears in the desired position. In the case shown here, the ZvShow channel is desired as the lowest number in the plant so that it is the "first" channel in the television's lineup.



1. Choose Enabled and hit Apply to activate the ZvShow channel.

The ZvShow channel is now active.

If no file has been uploaded, the ZvShow channel will be enabled and display a ZeeVee idle screen with a message stating "NO MPEG FILE LOADED."

2. Rescan the channel lineup on the attached televisions. Televisions usually require a full rescan to detect the addition of a new logical channel.

Following the channel scan, the television should display the full lineup of channels with the addition of the new ZvShow channel.

