

**TIME | JAY**

**TimejayHX v.2.0.9  
User's manual**

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## About TimejayHX

TimejayHX time-delay is a comprehensive time-shifting application for building up new "+1" channels on DVB-T or satellite.

Key features:

- Broadcast grade engineering allows true 24hours a day operation
- TimejayHX can be set to delay few minutes to several hours, depending on your exact channel requirements.
- TimejayHX includes a comprehensive logo inserter, offering static pictures and animated Flash video overlays, so you save money on purchase of costly external logo generators.
- Works with BlackMagic, Bluefish444, Deltacast, Stream Labs, Dektec, AJA and IP I/O.
- TimejayHX is HD-ready, you will just need to add a software plug-in.

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## Quickstart

Here is a short summary of basic operations for speeding up TimejayHX initial setup. For further details we strongly suggest you to carefully read the user's manual!

**Installing your customized USB dongle:** Insert the USB dongle in one of the available USB ports. If Windows is running, the dongle is recognized and installed automatically following a search on Windows Update.

### Installing TimejayHX

1. Insert the installation CD in your CD-ROM drive.
2. Double click on the setup.exe file in the "timejayHX" folder to start setup.
3. Follow the on-screen guided instructions which will guide you for the rest of the setup procedure.
4. Copy the wjlogo.bmp file from the main folder of your installation CD to TimejayHX installation folder (usually c:\program files\timejayHX if you choose the default one). This file is your station logo which is needed for software customization.
5. Click "Start", "TimejayHX", "TimejayHX" to start the application, then click on "Setup" button and proceed to perform initial system setup and configuring your video capture and playout settings, etc.
6. Confirm changes and restart the application to validate the new settings.

Once you're done with setup and initial testing, we strongly suggest you to fine tune your system setup for best performance:

- Disable screen savers and power saving modes: from the Windows desktop, click the mouse right button, select "properties", click on "screen saver" tab, and from the drop-down menu select "none". In the "Screen power saving setup" section, click on "setting" and from the drop down menus "turn down monitor" and "disable hard disks" select "Never".
- Add TimejayHX to Windows autostart group, so the software will automatically restart after a power failure.

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## Chapter 1: The user interface

Graphic layout of TimejayHX is based on “skins”: these are packages of graphics components which are used to customize software appearance, from dialog windows to buttons, menus, labels, etc. Thanks to skins, the user interface can be made good looking according to your own taste. TimejayHX includes a folder with several “skins”: click on this button and browse your skin folder to select your favourite one. Some examples of skins:



## The main window



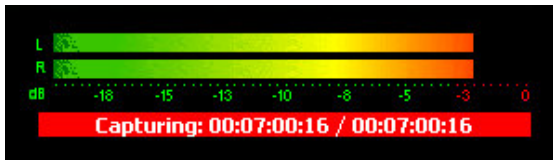
This is the main window, which appears when the TimejayHX application is started. The window is made of:

- Buttons to activate the main features
- The 1st preview on the left displays the input signal with the associated audio VU-meters and capture timer.
- The 2nd preview on the right displays the output signal.



## Detailed description

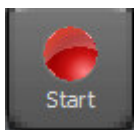
- **Audio input/output VU-meters**



The VU-meter shows in real-time the input and output audio levels. Signal is represented as peak level in dBs, where the 0 dB is the absolute maximum before a clipping occurs. The VU-meter also includes a peak-hold feature: the peak level

segments are temporarily left visible before resetting themselves.

- **Start button**



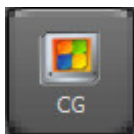
Starts audio/video capturing and time-shifting process. The player will automatically resync to the desired buffer delay position (for example 1 hour) after the buffer has been filled with the required waiting time.

- **Stop button**



Stops video capturing and buffering and turns back to preview mode.

- **CG button**



Opens the CG window to allow structured graphic overlays.

- **Play/Pause button**



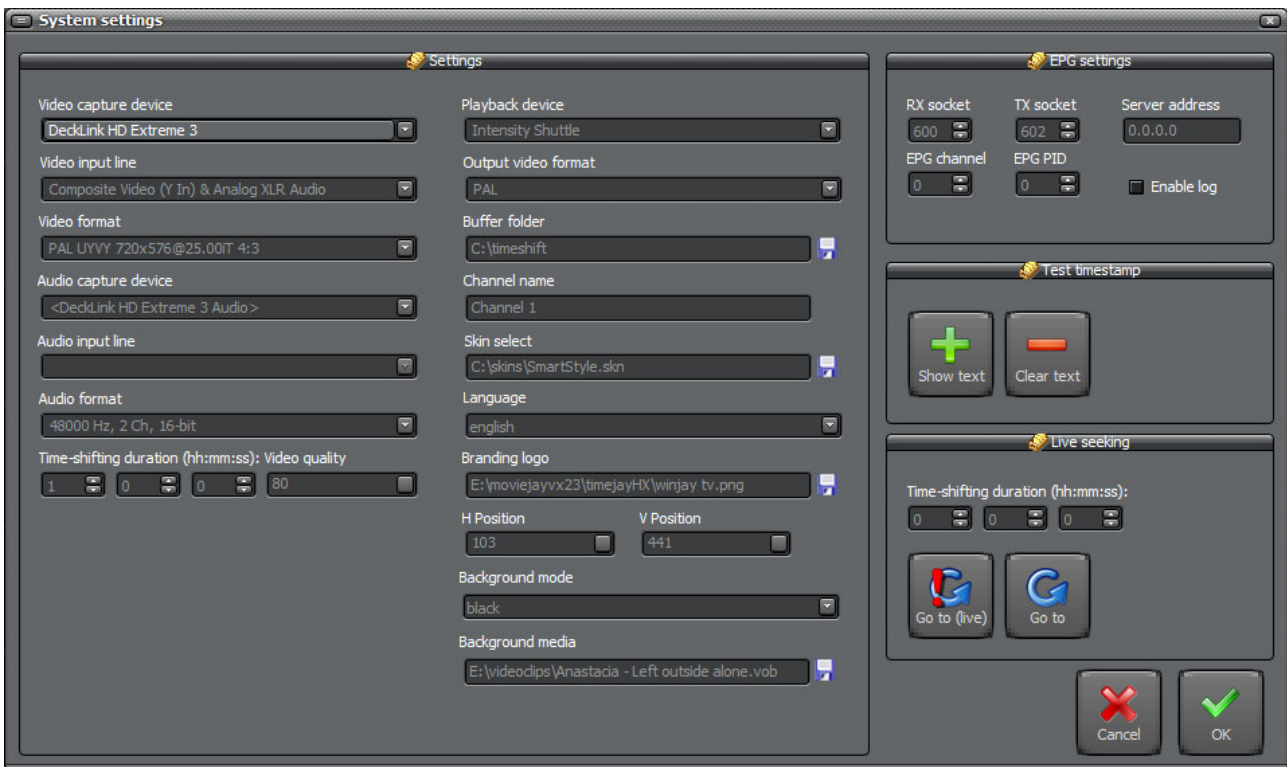
Playback of time shifted buffer will normally start and stop automatically as required. This button allows to pause playback of time-shifted video and output the user set background (static picture or media), or to restart playback of time-shifted buffer.

- **Setup button**



Opens the setup window to set all the application operating parameters.

# The setup window



The setup window allows to set various hardware and software settings such as the capture and playout cards, buffering folder, etc.). Some changes can be applied live but for initial configuration it is required to restart TimejayHX to apply changes.



## Detailed description

- **Capture source**

- IP stream: the video is captured from a URL.
- Capture device: the video signal is captured from the selected video capture device.

- **Source URL**

If the video source is set on IP stream, here you must specify the stream network address.

- **Video capture device**

Sets the video capture card used for video input. All the related boxes below (video format, input line etc.) will be automatically updated accordingly.



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- **Video input line**

If the card offers more input lines (for example analogue and SDI) sets the desired video input.

- **Video format**

Sets the video format for capturing

- **Audio capture device**

Sets the audio capture card used for audio input.

- **Audio input line**

If the card offers more input lines (for example analogue and SDI) sets the desired audio input.

- **Audio format**

Sets the audio format for capturing.

- **Playback device**

Sets the video card used for playing back the time-shifted output.

- **Output video format**

Sets the output video format (PAL, NTSC, HD720, HD1080, etc.).

- **Buffer folder**

Sets the buffer folder for the time-shifting buffer.

- **Time-shifting duration**

The boxes set the desired time-shifting delay in hour, minutes and seconds.

- **Channel name**

Sets the channel name that will be displayed in the application window's caption, for to identify the desired channel when multiple channels are used.

- **Skin select**

Click on the button to the right of the edit box and browse your skin folder to select your favourite skin.

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- **Channel name**

Sets the input channel name, which is shown on the main recording window and the virtual output device to identify the channel.

- **Skin select**

Click on the button to the right of the edit box and browse your skin folder to select your favourite skin.

- **Language**

TimejayHX is multilingual and any caption used in the software is read from a text file you can easily tailor to your needs, or copy-and-paste to create new languages. The software comes with English and Italian LNG language files, found in the software setup folder. To edit your default language, just select your favourite one from the available languages in the drop-down box.

- **Branding logo**

Click on the button to the right of the edit box and browse to select your favourite logo to be overlaid on the time-shifted output video.

- **H and V position**

The cursors set the logo horizontal and vertical position on the output video.

- **Background mode**

Sets the background or media to show until the time-shifting buffer is ready. If you select the “media file” option, you can choose a multimedia file as background (video clip or picture).

- **Background media**

Sets the multimedia file to play until the time-shifting buffer is ready.

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## **EPG settings**

TimejayHX includes a EPG delay feature, so the realtime informations received from the moviejayHX playout will be delayed according to the set delay time:

- **RX Socket**

Sets the TCP/UDP socket which will be used to receive EPG informations from moviejayHX playout. The socket set here should correspond to TX socket set on moviejayHX.

- **TX Socket**

Sets the TCP/UDP socket which will be used to send EPG informations to the EPG Tool. The socket set here should correspond to RX socket set on EPG Tool.

- **Server address**

Sets the workstation LAN address where the moviejayHX on-air module is running.

- **EPG channel**

Sets the channel information to the EPG encoder.

- **EPG PID**

Sets the video PID corresponding to the channel played back and delayed from timejayHX. The PID must be set in decimal, for example 461 corresponds to 01CD.

- **Enable log**

Enables logging of EPG informations, for debug purposes.

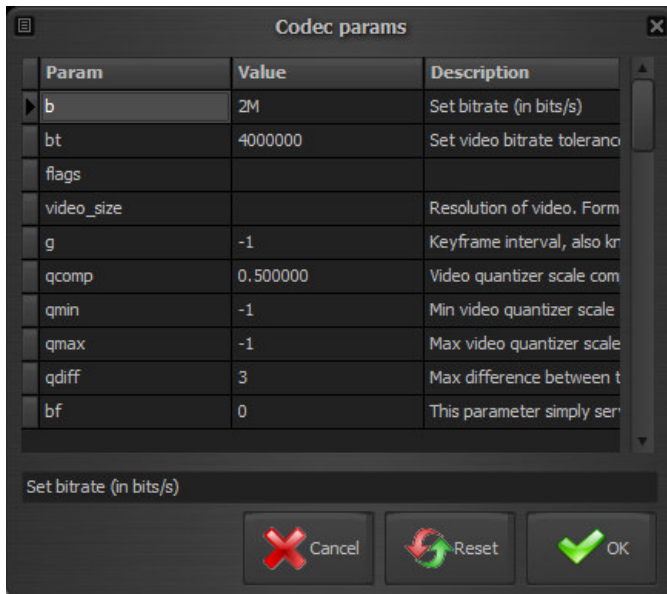
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## Streaming

TimejayHX also allows play back the delayed video to a streaming server or export to local video clip. Here you can specify all the related settings.

- **File or streaming format**

Sets the output file format (MPEG, MOV, etc.) or streaming format (RTMP, UDP, etc.). The associated button on the right allows opens a dedicated window to customize muxer params:



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- **Video codec**

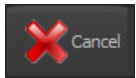
Sets the desired video codec for the video file or streaming output. As above, the button on the right allows to customize codec params.

- **Audio codec**

Sets the desired audio codec for the video file or streaming output. The button on the right allows to customize codec params.

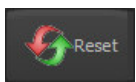
You can change any of the settings shown by typing a new value in the related column, or reset a single setting to its default value by deleting the corresponding value in the grid.

- **Cancel button**



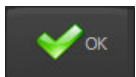
Cancels changes and closes the codec params window.

- **Reset button**



Resets to defaults all settings related to the selected codec, and closes the window.

- **OK button**



Confirms changes and closes the codec params window.

- **Filename or URL**

Sets the output filename for local file or URL for streaming output. Example for UDP streaming: `udp://192.168.0.8:5000` to a specific target, or `udp://192.168.0.255:5000` to all destination IP addressed on that class.

In the example, 192.168.0.8 is the target IP, 5000 is the target port.

To check the stream, you can run VLC on the target workstation 192.168.0.8 and open the network stream as: `udp://@192.168.0.8:5000`

Other than the settings listed in the popup box, it is also possible to specify many of the additional settings in the form of `udp://hostname:port?your_param=your_param_value` as listed in the FFmpeg documentation at:

<https://www.ffmpeg.org/ffmpeg-protocols.html>

Examples:

- to specify a TTL value of 1 for UDP streaming, the above sample can be modified as:  
`udp://192.168.0.8:5000?ttl=1`

- in case more network interfaces are installed in the same the workstation, to set the specific network interface where to output the streaming and the TTL value as above:  
`udp://192.168.0.8:5000?ttl=1&localaddr=111.112.122.222`

where 111.112.122.222 is the address of the network interface

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For streaming in RTMP format, a sample URL is like the following:  
rtmp://User:Password@server.com/live/myStreamName

In case any of the fields like username or password contain any special characters (like the @), you can alternatively use an extended authentication string, like the following:  
rtmp://[SERVER]/[APPLICATION] flashver=FMLE/3.0\20(compatible;\20FMSc/1.0)  
live=true pubUser=[LOGIN] pubPasswd=[PASSWORD] playpath=[STREAM\_ID]

More examples:

FlashWebTown:  
rtmp://User:Stream@flashwebtown.com/live/test

DaCast:  
rtmp://p.ep348639.i.akamaientrypoint.net/EntryPoint  
flashver=FMLE/3.0\20(compatible;\20FMSc/1.0) live=true pubUser=User  
pubPasswd=Password playpath= myStreamName


YouTube:  
rtmp://a.rtmp.youtube.com/live2/myStreamName

- **External encoder**

Sets the path to a BAT or CMD file that will launch an external application to encode the stream, for example c:\progam files (x86)\moviejaySX\vlc.cmd to use a provided sample. To use the internal encoding features, this field should be left blank.

Should you wish to use VLC as external encoder, you can find a list of the available command line options at: [https://wiki.videolan.org/VLC\\_command-line\\_help](https://wiki.videolan.org/VLC_command-line_help)

- **Run / Stop buttons**

Start and stop playback export or streaming process. If export is running, on the on-air screen the icon  is shown.

- **Enable NDI output**

Enables/disables simultaneous output to Newtek NDI (Network Device Interface) protocol that allows transmitting video streams via LAN instead of SDI. The NDI protocol allows to send video to Newtek compatible devices and other Winjay applications, for example you can add the TimejayHX delayed output as playlist item inside a moviejaySX/HX playout.

- **Start capture/streaming at startup**

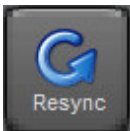
Allows to enable/disable automatic start of capture to disk or streaming when application is restarted.

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## **Seeking:**

These controls allow to change the time-shifting position along the buffer “on the fly”. For example if the recording buffer is set to 1 hour, you can freely move along the time-shifted output video from 1 second to 1 hour.

- **Resync button**



Confirms the delay set in the hh:mm:ss boxes and sets the player to the desired buffer position.

- **Live Resync button**



If the Live Resync button is pressed, any changes to the hh:mm:ss boxes will have immediate effect.

- **Cancel button**



Cancels updates and closes the setup window. You'll see a dialog box asking for confirmation.

- **OK button**



Confirms updates and closes the setup window.

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