

A Guide to Film and Broadcast Video Standards

Posted by shaunthesheep - 18 Apr 2011 16:54

Since Lightworks began life 25 years ago as a professional film and broadcast video editor, it should not be surprising to know that it currently requires that all imported footage adheres to film and broadcast standards. So, if some users of Lightworks are experiencing problems importing footage, it could be that this is because it does not conform to these strict standards in terms of resolutions and frame rates. Because of this, it is essential that new users of Lightworks understand what these standards are. By the way, the Lightworks developers are planning to broaden the range of supported video formats in the future.

Video formats

Format = Resolution (image size) + Frequency + Frame Rate

To find out what these terms mean see here, see **Making Sense of HD Formats** (listed below).

Difference between codecs and containers

For a non-technical explanation of what a codec is and the difference between containers and codecs [see here](#)

Using MediaInfo

To find out what resolution, frequency, frame rate and also other info such as type of compression (codec) is used in your footage, use free tools like [MediaInfo](#) to analyse your video file.

Once installed, right click on your video file. Select "MediaInfo". This launches Mediainfo and it reveals a summary of your clip's resolution, frequency, frame rate and codec. For the fullest details, go to the View menu > Text. Then File > export > text tab, choose a file name and destination and then click OK. This will export a text file with a complete analysis of your video file. You can post the text on this forum to help others understand the format of your footage and troubleshoot any problems.

Note. In order to see "MediaInfo" listed in your right click menu, you may need to re-boot after installation and/or start MediaInfo at least one time in Start > Programs > MediaInfo.

Resources that explain Film and Broadcast Video Standards

The following links to websites and blogs that explain film and broadcast standards may be useful for people who are not yet familiar with them. Other forum users may wish to add links to other useful resources in subsequent posts to this thread.

[Video Frame and Resolution Explained](#) - a useful and concise summary by blogger Sammiesamkuz.

[Making Sense of HD Formats](#) - this is an easy to understand guide from AbelCine's Technical Blog.

[Video format resolutions](#) - this gives an idea of the range of video resolutions that exist. For example, digital cinema, digital TV and also computer monitors, cell phones, video conferencing. Note that Lightworks currently uses only the those listed under digital cinema and digital TV.

[Video Frame rates](#) - a Wikipedia page on this aspect of broadcast standards.

[Advanced Television Systems Committee](#) (ATSC) - a Wikipedia page on one of the organisations that sets broadcast standards.

[Digital Video Broadcasting](#) (DVB) - a Wikipedia page on another organisation that sets broadcast standards.

[A Quick Guide to Digital Video Resolution and Aspect Ratio Conversions](#) - by Aho Jukka.

[The Engineer's Guide to Standards Conversion](#) . Quite a technical document. Not for the faint hearted.

[Quantel digital factbook](#) - quite comprehensive and informative.

Here is a screen grab of the Lightworks Create New Project panel which shows which frame rates are currently supported.

Note to Linux users--MedialInfo is available via the *buntu software centre.

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Re: A Guide to Film and Broadcast Video Standards

Posted by shaunthesheep - 29 Apr 2011 16:26

[The 16:9 Enhanced DVD: Demystified](#) - an explanation of how widescreen movies are viewed on 4:3 TVs.

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Re: A Guide to Film and Broadcast Video Standards

Posted by Piggy2 - 27 Oct 2018 04:55

That was really interesting!

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