



K-Watch & K-Manager Pro

Application Software

User Manual

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K-Watch and K-Manager Pro

Acknowledgements

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Before Starting

This User Instruction Manual will help you through each stage of the setup, configuration and operation. If you have any questions regarding the use and operation of your K-Watch software, please refer to the Service Support contact details listed at the rear of this manual.

Before you can use this Product

Important:

- Make sure that your Kahuna Mainframe is running V9.3r1 software or greater.
- You have to load Kahuna MSP software onto your PC to have access to K-Watch. When Kahuna MSP is loaded correctly, K-Watch will automatically be installed onto your PC and you will see a K-Watch  icon in your PC's desktop.

K-Watch application software can be used in two modes:

- (1) In stand-alone mode where the PC converts stills, clips or audio files and stores them on an internal or external memory device.
- (2) With K-Manager Pro (licence purchase for Kahuna required), the PC converts the stills, clips or audio files and sends them to the Kahuna mainframe over a network.

Minimum System Requirements

Processor: Intel(R) Celeron(R) CPU J3355 @ 2.00GHz, 2001Mhz, 2 Core(s), 2 Logical Processor(s)
Installed Memory (RAM): 4.00 GB (3.85 GB usable)
System Type: 64-bit Operating System, x64-based processor
Operating system: Microsoft Windows 10 Pro
Graphics: Intel(R) HD Graphics
HDD: 64GB.

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Overview

K-Watch works by constantly looking at a "WATCH" folder on your PC. Any video or still files which are placed in that folder will automatically be converted to the Kahuna .SWS format and the required video standard (as set by the user). The converted files are placed into a "DESTINATION" folder.

The New Kahuna Watch software is faster than the original K-Watch software. All popular video, and still formats are supported.

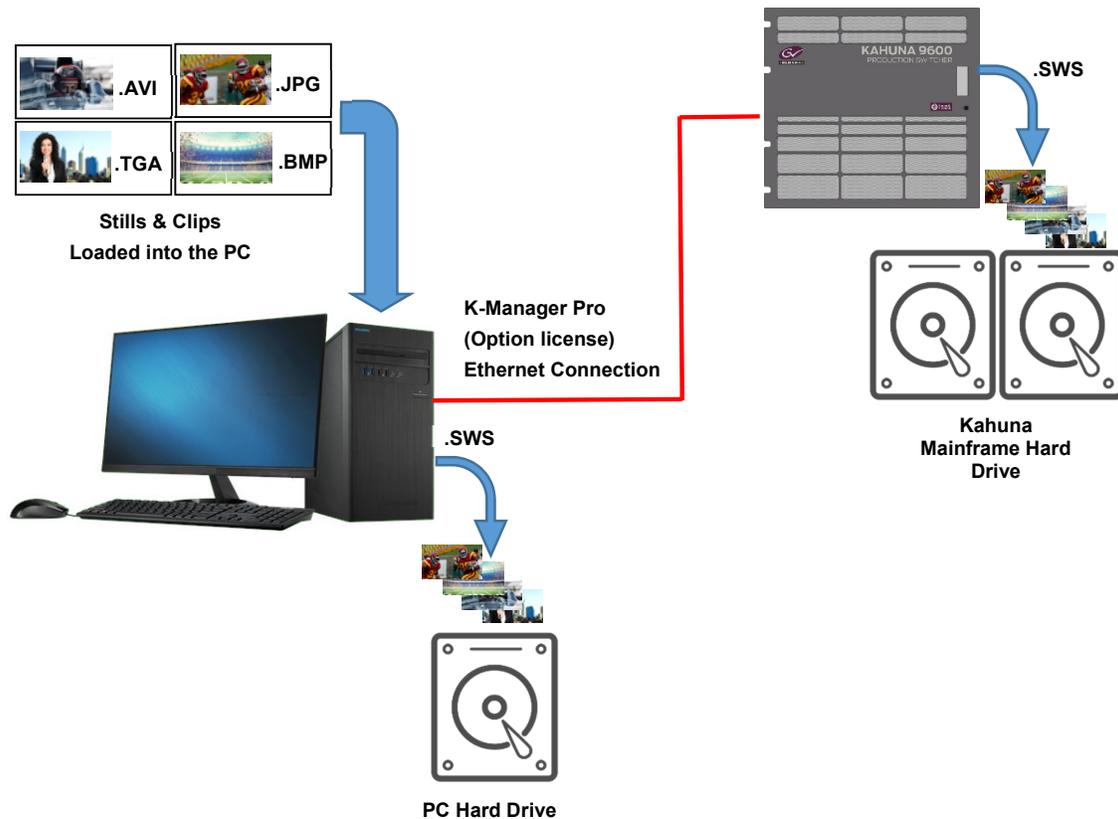
Important Note:

Newer files of same name placed in watch folder, will update previously converted file in destination folder or any existing files with the same file number will be overwritten if newer!

With K-manager Pro these files can be automatically uploaded to your mainframe via a network (mainframe option file licence required).

You can have several of these watch services running at the same time – each can have different conversion settings.

The .SWS files are sent to a **project** in a specified "**Destination Folder**" on the computer. If the computer is networked to a Kahuna mainframe, the .SWS files will be uploaded to a specified project on the Kahuna mainframe.



K-Watch Quick Setup

This is a basic step by step overview of how to setup and use K-Watch to convert .TGA files (video clip) into the Kahuna .SWS native format. Convert a .MOV file into a Kahuna .SWS file.

Step 1 - Setup K-Watch Menus

The first thing to do is to setup a "Watch" folder and a "Destination" folders on your PC. This is so that K-Watch can receive, convert and place converted files into a Destination folder.

Important:

When done, double click on the K-Watch icon.

Open K-Watch software and the first menu to be displayed is the **Kahuna Watch** menu.

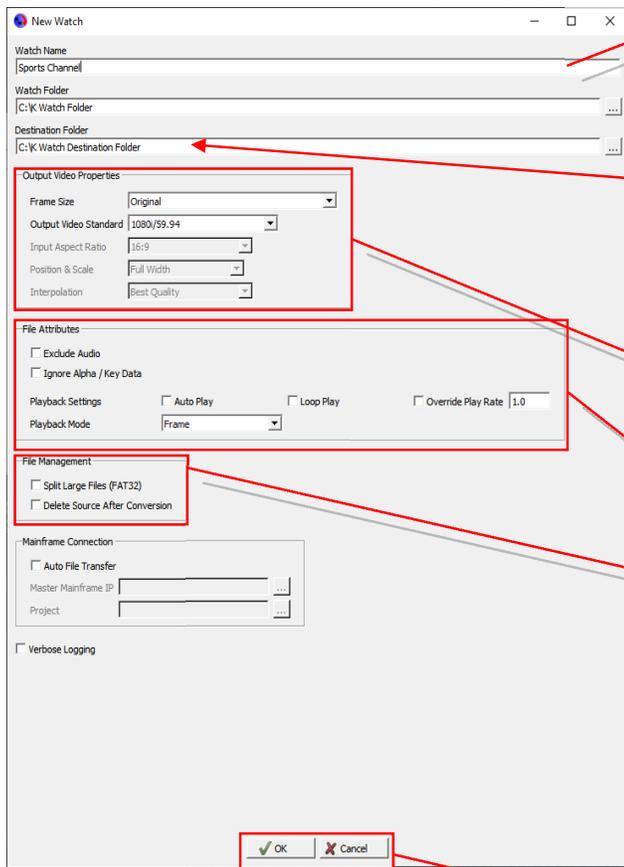
1. Click "Add" to open Add New Watch

2. Name the file, so the clips can be identified in the Kahuna Watch table in the menu above.

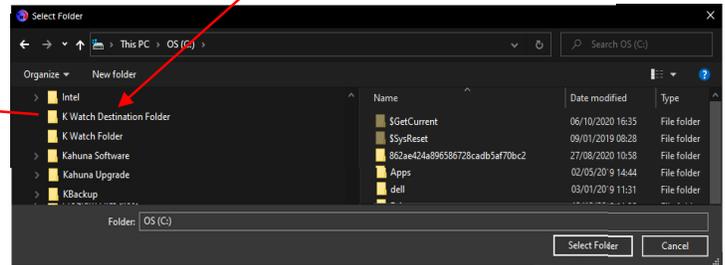
3. Click browse for the Watch Folder

Note: All the menu parameters will be explained in detail in the following sections.

Finally, setup the “**Add New Watch**” menu to convert the incoming files.



4. Click browse for the **Destination Folder**



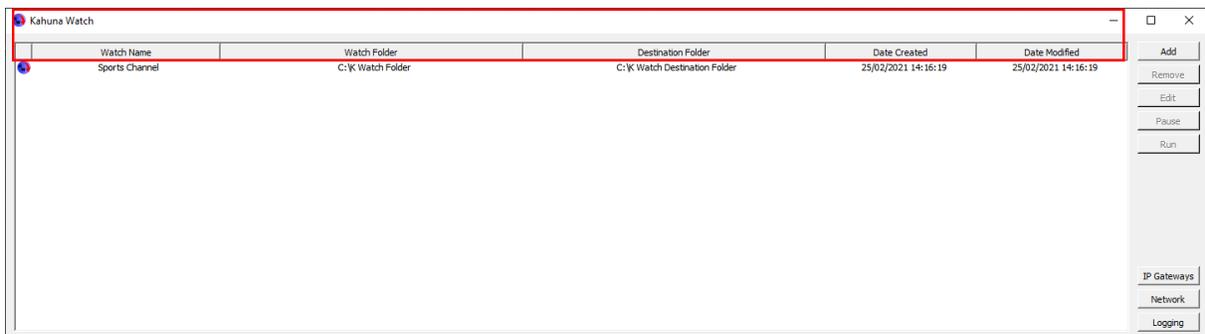
5. Select the type of Video Standard the files will be converted to.

6. Select the File Attributes

7. File Management - Select “Split Large Files (FAT32)”
Note: Only necessary when importing large files via an external USB device. Make sure that this is selected at all times just in case the converted .SWS file is larger than 4Gb in size. If it is larger than 4Gb it cannot be loaded into Kahuna. K-Watch software will split the files down and place them in a .SWS folder, the folder is recognised as a clip when loaded into Kahuna.

8. When finished, click on “OK”

The **Kahuna Watch** menu will now look like this with the **Watch** and **Destination** folders setup:



Note: If you close down the K-Watch user interface, any watch folders that have been scheduled, will carry on running in the background as a service, if new files are dropped into the “Watch” folder.

Step 2 - Naming the Incoming .TGA Files

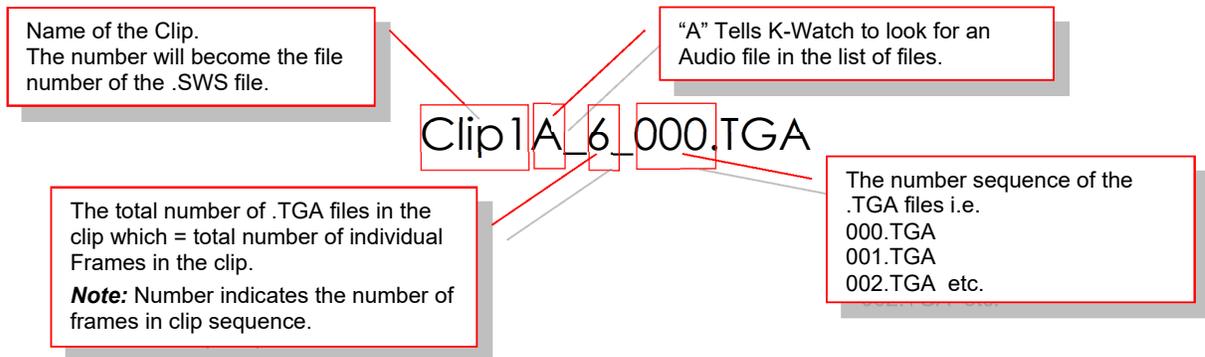
Supported Formats

A list of supported media file formats can be found at:

https://www.ffmpeg.org/general.html#Supported-File-Formats_002c-Codecs-or-Features

It is important to understand how to name .TGA files before placing them into the Watch folder. **For more detailed information, read the "K-Watch File Naming Conventions" section of this manual.**

When creating a sequence of .TGA files to create a .SWS clip, please follow the naming conventions example below:



Important: When giving the clip a name i.e. "Clip1", after the first character in the name, do not have any other capital letters because if an "A", "F" or "K" is added after the first character the software will think that the file contains Audio, Fill or Key files and the .TGA files will not be converted to .SWS.

Note: If the .TGA files have embedded Key data (alpha channel), then there is no need to let the sequence know about 'F' Fill or 'K' Key data and un-checking the "**Ignore Alpha /Key Data**" function would use the embedded alpha data in the file for the key channel.

The .TGA file sequence will look like this:

Clip1A_6_000.TGA
Clip1A_6_001.TGA
Clip1A_6_002.TGA
Clip1A_6_003.TGA
Clip1A_6_004.TGA
Clip1A_6_005.TGA
Clip1A_6_006.TGA
Audio1_6_001.WAV

Clip Sequence of .TGA files = 6 Frames long

.WAV Audio File = 6 Frames long

The .SWS file will look like this:

1.SWS

Converted Clip

Nearly all .TGA Stills and Clips already have Fill and Key (Alpha) data, so the following steps would only need to be taken if a file has no Key data.
 If the sequence of .TGA files are made up of 50% "Fill" files and 50% "Key" files, then the naming convention should be as follows:

Remember: After "Clip1" in each .TGA file, "F" = Fill, "K" = Key and "A" = Audio

Clip1FA_6_000.TGA
 Clip1FA_6_001.TGA
 Clip1FA_6_002.TGA
 Clip1FA_6_003.TGA
 Clip1K_6_001.TGA
 Clip1K_6_002.TGA
 Clip1K_6_003.TGA
 Clip1K_6_004.TGA
 Audio1F_1_001.WAV

This will create a clip with "Fill" and "Key" portions, with 1 frame of "Audio" attached to the Fill portion of the clip

1.SWS

Converted Clip with Fill, Key and Audio.

Step 3 - Naming the .MOV File

Naming the .MOV file is very simple.
 Example: **Newsclip1.MOV**

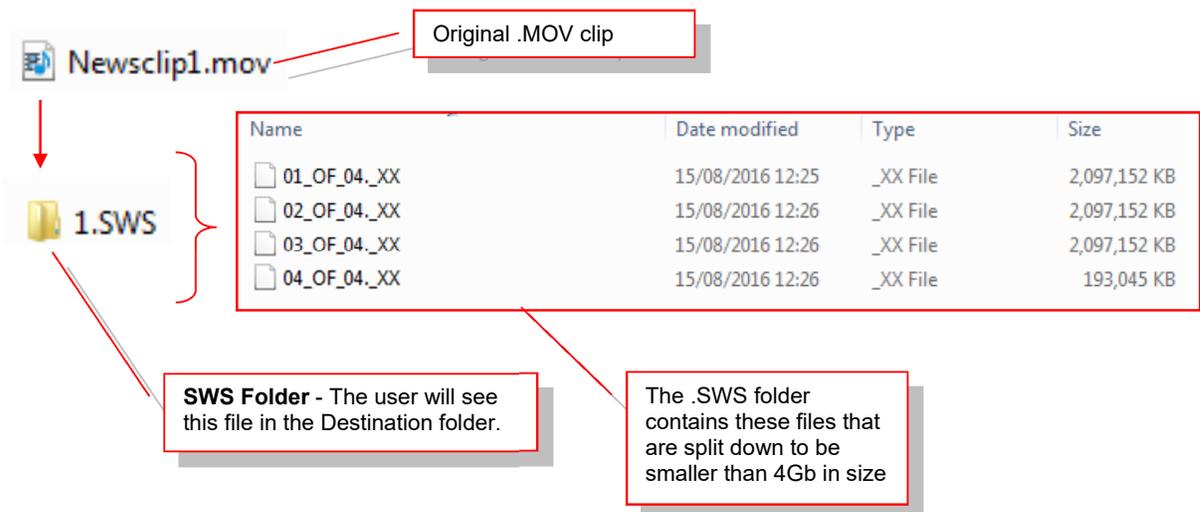
Name of the Clip.
 The number will become the file number of the .SWS file.

Newsclip1.MOV = 1.SWS

Converted Clip

Any Audio, Fill or Key information will be embedded into the file so that the file will just convert to .SWS.

Note: If the .MOV file is 2.5Gb or more, the resultant .SWS file will be larger than 4Gb. K-Watch software will split the file down and place the split files into a .SWS folder (shown below).



Note: When loaded into Kahuna, the .SWS folder is seen as a clip and will run just like any other clip.

Step 4 While K-Watch is Running

Place the .TGA or .MOV files into the “**Watch Folder**” and K-Watch will start to convert the files to .SWS format.
Look in the **Destination** folder for the converted files.

K-Watch File Naming Conventions

Creating Stills

The creation of a still requires the source file name to have the following naming convention fields at the end of the file name:

{Output File Number}
{Optional 'F', 'K' or 'A' character for fill, key or audio}
{Optional 'F', 'K' or 'A' character for fill, key or audio}

Note: A key channel will automatically be created, if the source file contains a fill and key.

Examples:

Ex 1.

Still001.TGA - This will convert the still to "**1.SWS**"

10.TGA - This will convert single .TGA file to "**10.SWS**"

Ex 2.

Still001F.BMP

This will look for a Key source file "Still001K.BMP" before creating "**1.SWS**" with **Fill + Key**

Ex 3.

Still001A.TGA

This will look for an audio source file "Still001.WAV" before creating "**1.SWS**" with **Fill + Fill Audio**.

Ex 4.

Still001FA.TGA

This will look for key source file "Still001K.TGA" and "Still001.WAV" before creating "**1.SWS**" with **Fill + Key + Fill Audio**.

Creating Clips

The creation of a clip requires the source file name to have the following naming convention fields at the end of the file name:

{Output File Number}
{Optional 'F', 'K' or 'A' character for fill, key or audio}
{Single Non-Numeric Character}
{Maximum Number of Still/Audio files}
{Single Non-Numeric Character}
{Sequence/Audio group number}

Note: Audio group number in channel pairs:
 Audio group number 1 is for channels 1 and 2
 Audio group number 2 is for channels 3 and 4
 Audio group number 3 is for channels 5 and 6
 Audio group number 4 is for channels 7 and 8

Examples:

Ex1.

Still1_3_0001.TGA

Still1_3_0002.TGA

Still1_3_0003.TGA

This converts all the .TGA files above into a clip called "**1.SWS**" that is 3 frames long.

Ex 2.

Still2F_3_0001.BMP
Still2F_3_0002.BMP
Still2F_3_0003.BMP
Still2K_3_0001.BMP
Still2K_3_0002.BMP
Still2K_3_0003.BMP

This will convert all the .BMP files above into a clip called "**2.SWS**", that is 3 frames long and contains **Fill + Key data**.

Ex 3.

Still3FA_3_0001. BMP
Still3FA_3_0002. BMP
Still3FA_3_0003. BMP
Still3K_3_0001. BMP
Still3K_3_0002. BMP
Still3K_3_0003. BMP,
Audio3F_1_0001.WAV

This will convert all the files above into a clip called "**3.SWS**", that is 3 frames long containing **Fill + Key + Fill Audio data**.

Ex 4.

Still4FA_3_0001. BMP
Still4FA_3_0002. BMP
Still4FA_3_0003. BMP,
Still4KA_3_0001. BMP
Still4KA_3_0002. BMP
Still4KA_3_0003. BMP,
Audio4F_1_0001. WAV
Audio4K_1_0001. WAV

This converts all the files above into a clip called "**4.SWS**" clip that is 3 frames long and contains **Fill + Key + Fill Audio data + Key audio data**.

AVI Files

The creation of a clip requires the source file name to have the following naming convention field at the end of the file name:

{Output File Number}

Note: Audio data will automatically be added if source file contains audio.

Example:

5.AVI

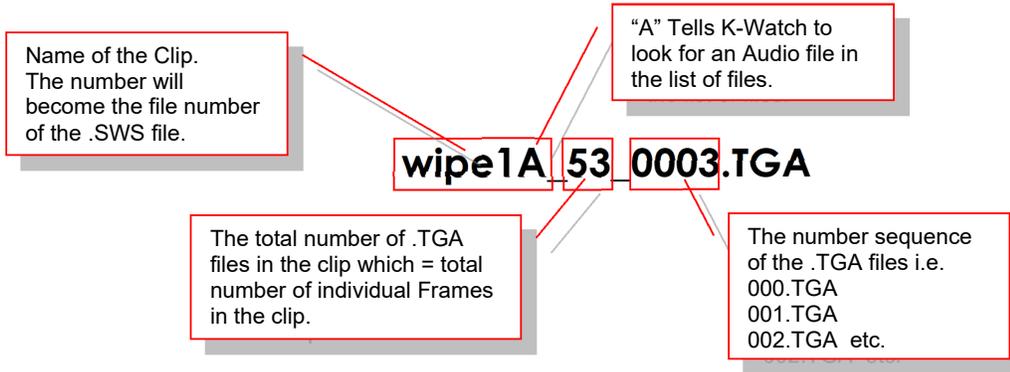
This will convert the .AVI file into a clip called "**5.SWS**"

Naming the Clip

In this example a 53 frame clip will be created using a .TGA file format (3840 x 2160) with embedded alpha channels and a .WAV file for the audio.

Example .TGA = **wipe1A_53_0000.TGA**

Note The 'A' character is used to let the K-Watch sequence know that it requires an "Audio" file will be associated with the .TGA files..



Important Note: When giving the clip a name i.e. "wipe1", after the first character in the name, do not have any other capital letters because if an "A", "F" or "K" is added after the first character the software will think that the file contains Audio, Fill or Key files and the .TGA files will not be converted to .SWS.

Example:

| | | | |
|----------------|------------------|----------|-----------|
| wipe1A_53_0001 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0002 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0003 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0004 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0005 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0006 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0007 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0008 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0009 | 26/11/2015 16:06 | TGA File | 32,401 KB |
| wipe1A_53_0010 | 26/11/2015 16:06 | TGA File | 32,401 KB |

The audio file example name = **audio1_53_0001.WAV**

The audio file should be placed in the "Watch" folder at the same time as the .TGA files so that it can be associated with .TGA files

Important Note: If the .TGA files have embedded Key data (Alpha channel), then there is no need to let the sequence know about 'F' Fill or 'K' Key data and un-checking the "**Ignore Alpha /Key Data**" would use the embedded alpha data in the file for the key channel.

Start K-Watch Running

After finishing naming the files, place all the .TGA files into the "Watch" folder and the conversion process will automatically start.

Additional Information

Note:

This information would only be needed if the files do not contain a Key (Alpha) data. From the information above, if the sequence of .TGA files are made up of 50% "Fill" files and 50% "Key" files, then the naming convention should be as follows:
The number of .TGA files needs to increase to 54 to have an even number of Fill and Key files.

wipe1FA_54_0000.TGA

to

wipe1FA_54_0027.TGA

wipe1K_54_0028.TGA

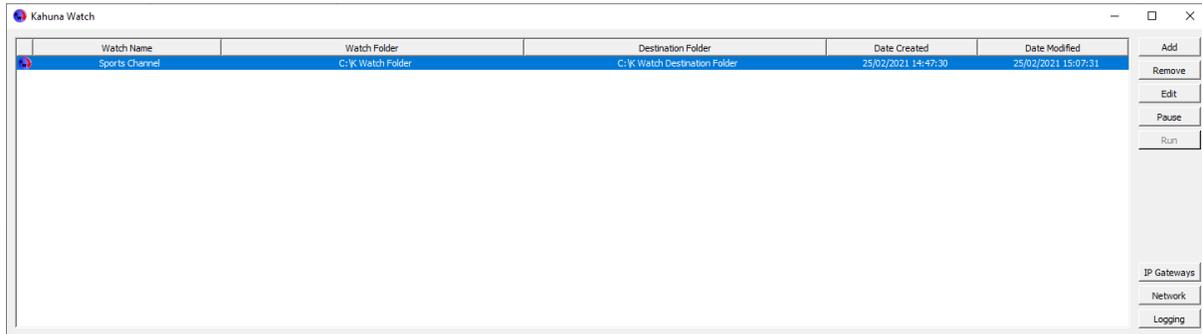
to

wipe1K_54_0054.TGA

audio1F_10_0001.WAV

K-Watch Menu Controls Explained

Double click on the K-Watch system tray icon in the bottom right of the Windows Desktop and the **K-Watch** table will be displayed.



To setup the K-Watch process, Press the **{Add...}** button, and the **Add New Watch** menu will appear.

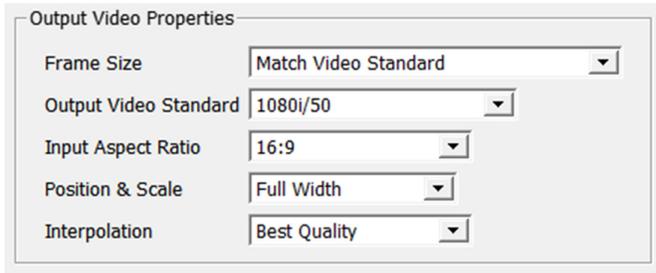


The **Add New Watch** menu is where all the parameters are set for the conversion of the incoming files.

Watch Name – is the name given to the individual Watch project – the name will also be displayed in the K-Watch table.

Watch Folder – here, the user selects the Watch Folder on the PC hard drive, where the **incoming** stills, clips and audio files are placed.

Destination Folder – here the user selects the Destination Folder where the files are placed after the conversion process.



Output Video Properties

Frame Size: Match Video Standard

Output Video Standard: 1080i/50

Input Aspect Ratio: 16:9

Position & Scale: Full Width

Interpolation: Best Quality

Output Video Properties:

Frame Size – there are two options for this.

- **Original** - In this mode Watch will not perform any resizing of the image.
- **Match Video Standard** - When this is selected, Watch will resize the image to match the video standard using the parameters below.

Output Video Standard – this drop-down menu selects the video standard for the created .sws file

Input Aspect Ratio –

- **4:3 or 16:9** - defines how images are interpreted for its aspect.
- **Square Pixel** - assumes that the pixels in the input image are square. This setting is ignored for HD video standards.

Position & Scale – this sets the position of the out-going .sws file relative to the Input Aspect Ratio.

- **Full Width** will set the input image width to follow the output video width while maintaining the aspect ratio.
- **Full Height** will set the input image height to follow the output image height while maintaining the aspect ratio.

Interpolation – selects the type of filter to be used for resizing input image.

- **Best Quality** - recommended interpolation filter designed for resizing video images.
- **Fastest** - standard resize interpolation filter

File Attributes:

In the **File Attributes** section, the settings will be applied to **all** the files converted.



File Attributes

Exclude Audio

Ignore Alpha / Key Data

Playback Settings: Auto Play Loop Play Override Play Rate: 1.0

Playback Mode: Frame

Exclude Audio – will only allow the video portion to pass

Ignore Alpha / Key – Nearly all still and clip files will contain Key (Alpha) data. So keep this box un-ticked. This function is only required if Key (alpha) data is not required when converting files.

Playback Settings:

Auto Play – a clip will automatically play when it is loaded into the Kahuna Store

Loop Play – Loop Mode is selected and the clip will continuously play when it is loaded into the Kahuna Store.

Override play rate – adjusting this parameter will set the play speed of the clip when it is loaded into the Kahuna Store.

Playback mode:

- **Field** – switches playback to interlaced
- **Frame** – switches play back to progressive
- **Field 1 & 2 Only** – will play either interlaced frames 1 or 2 only
- **Field Swap** – will swap Field 1 and Field 2 around at playback

File Management:



Split Large Files (FAT32) – this will split down a clip that is over 4Gb in size. The split files will go into a .SWS folder so that the folder can be imported into a Kahuna mainframe.

Note:

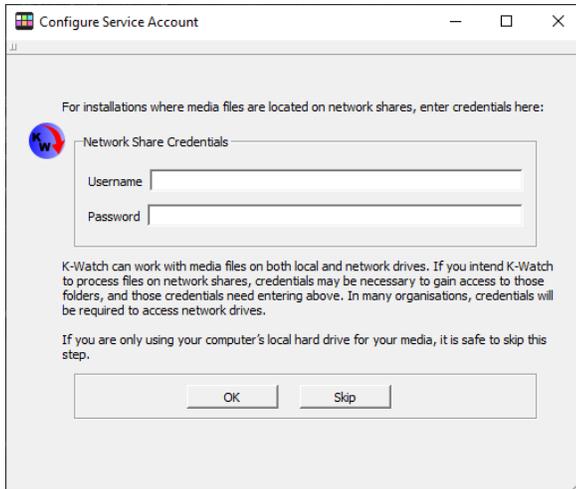
Splitting Large Files - Only necessary when importing files via an external USB device. Not necessary when importing via MSP.

Delete source after conversion – when selected will delete the source file from the Watch Folder.

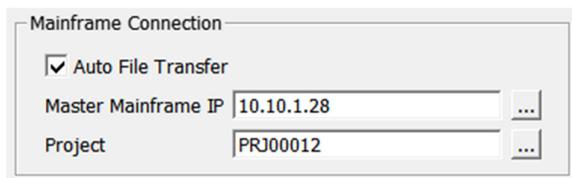
K-Manager Pro Settings

K-Watch can work with media files on both local and network drives. If you intend K-Watch to process files on network shares, credentials may be necessary to gain access to those folders, and those credentials need entering above. In many organisations, credentials will be required to access network drives.

A dialog box will appear the first time you open the K-Watch software. This allows you to add "Network Share Credentials" to allow K-Manager Pro to connect and use K-Watch on a network. If you only want to use K-Watch locally on your PC, click on the **{Skip}** button.



With the optional **K-Manager Pro** licence installed in your Kahuna Mainframe, K-Watch can transfer the converted files directly into a specific project on a mainframe. This is setup using the "**Mainframe Connection**" settings.



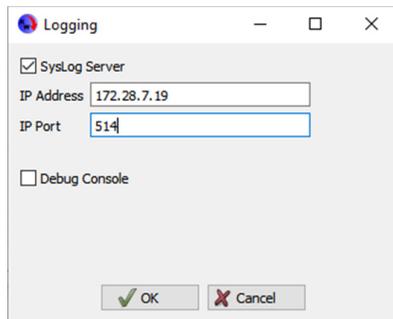
The file "**browse**" buttons will display a list of available Mainframes and Projects on the selected Mainframe.

Any files in the destination project with the same number will be overwritten.

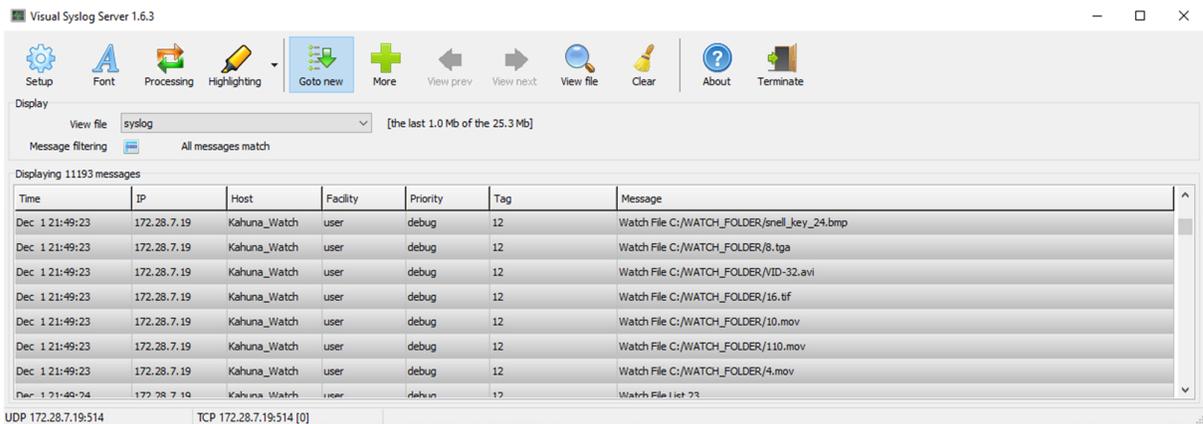
Once you have set up your Watch, click OK on the dialogue. Select your new Watch in the table and click on the **Run** button.

1. SysLog Server

K-Watch is capable of using an external Syslog server to save its diagnostic output. Syslog can be used to display log files showing information about files that have been converted or any error messages.

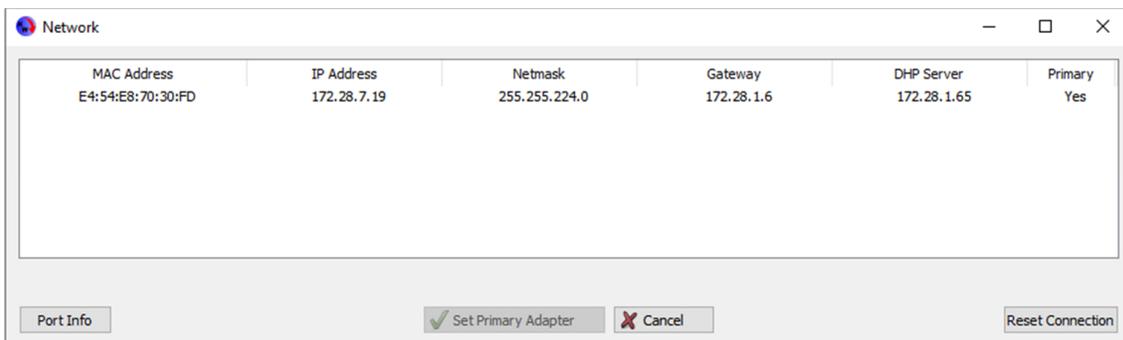


Below is an example form a SysLog server showing a list of files that have been converted through K-Watch.

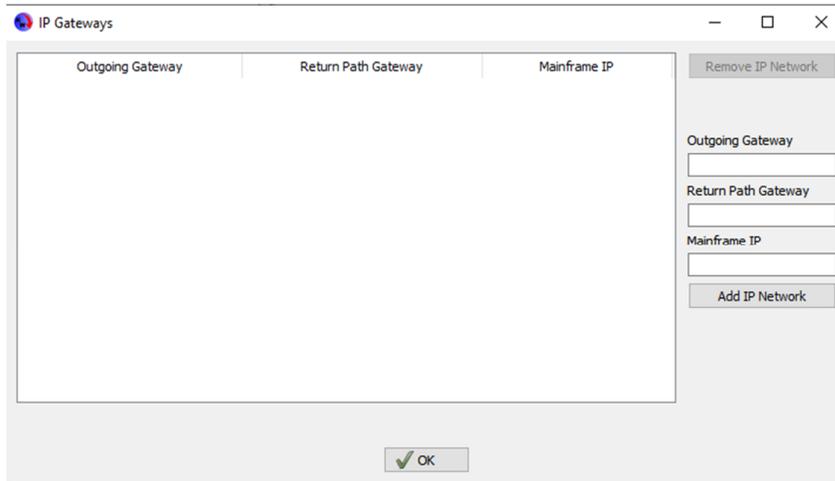


2. K-Watch Network

Control of network adapters, IP port number info and resetting connections to services.



3. IP Gateways



Technical Information

The following is list of K-watch ports that require privilege on your network. The MSP installer currently sets up group policies to enable this, however your IT department ought to be aware of the following:

Kahuna Watch fixed ports 5990 & 5988 - UDP communication between K360 mainframe and Kahuna Transfer Service.

Kahuna Watch fixed ports 43740, 43741, 43742 – TCP communication between Kahuna Watch GUI, Kahuna Watch Service and Kahuna Transfer Service.

Other Parameter Buttons



Remove - To remove a file from the *K-Watch* table, click on a file to select it, and then press the {Remove} button.

Edit – Will display the “Edit Watch” menu, which will allow you to change parameter settings; for example File Attributes or File Settings,

Pause – this can be used to pause the conversion process and K-Watch will wait.

Run – will start the conversion process running once more.

Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An on-line form for e-mail contact is also available from the website.

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