ImageOn the HD Stills Store

Introduction

Installation

Basics

Getting Started

<u>Menus</u>

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Contents

Basics

Starting a New Project

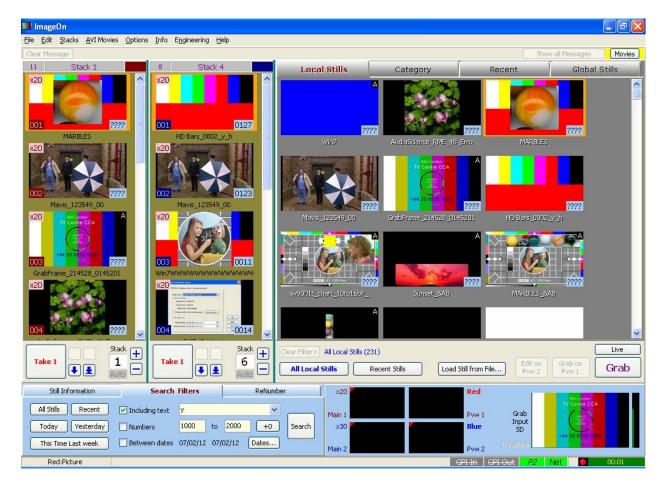
<u>Loading Stills</u>
<u>Taking Stills to Air</u>

Getting Started

Stacks +Labels
Main Display
Searching Stills
Mimic Images
Movies

<u>Menus</u>

Introduction



ImageOn is a new design of video Stills Store intended for the broadcast market and is initially available in uncompressed HD (1080/50i).

The current version can accept an HD or SD signal as a grab input but processes signals internally in HD.

The basic system has six HD outputs - Main, Preview for Playout stack 1 and Main, Preview for Playout stack 2 along with two movie outputs and one HD/SD grab input.

The Main and Preview outputs are associated with the two playout stacks, 98 stacks are available and these can be individually saved to disc for archiving or transfer to other ImageOn units.

HD AVI files can be played out from the movie outputs.

Full drag and drop setup and editing of the playout stacks is provided by the main interface comprising – screen, keyboard and mouse.

A small remote control keypad is supplied which covers grab and most still playout functions.

Comprehensive facilities for searching stills are provided.

Still image files can be imported and auto sized to fit the display area, formats supported are - Bitmap, Jpeg, Png, Targa and Tiff.

The importing of still images can be either directly from a USB memory stick or by remotely copying files into a network shared folder, the shared folder is continuously monitored for new files.

Transitions between stills in the playout stacks can be set separately for each still, options include fades and a variety of wipes.

Simple ARC/DVE and keying facilities are incorporated.

Stills are stored on RAID disc sets for data security.

Getting Started

Basics

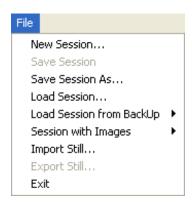
Starting a new project

Loading Stills

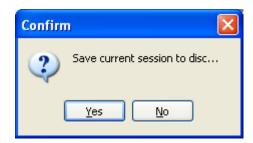
Taking Stills to Air

Starting a new project

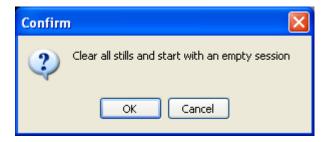
1, Select New Session from the File menu



2, In the prompt dialog that appears click Yes to save the current session, just in case anyone needs to access it later and use a session name of DD_MM_YYYY so that it be quickly located.



3, After saving the session, click OK in the next prompt dialog to clear out the previous stills.



The stills that have been cleared have not been deleted, they can be found in the Global list

Loading Stills

There are two main methods of loading new stills:-

- 1, Grab from an input video signal
- 2, Load a still from a disc file

To grab a still from the video input, monitor the image and click on the Grab button in the lower right of the main screen.



The list display will switch to the Recent list and show the grabbed still

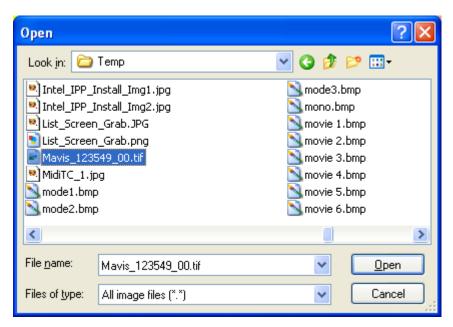


If there are multiple stills in the Recent list, the menu option <u>Reverse Sort Recent List</u> controls the order the stills are displayed default is oldest top left.

To load a still from disc file click on the Load Still from File button in the lower right of the main screen.



This will display an open file dialog



Select the required file and click Open, the file will be copied onto the ImageOn computer and a window will show the progress of the copying.



On completion of the copying, the new still will be shown on the Recent list

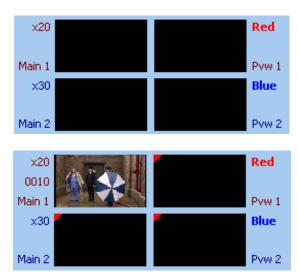
If the Recent List is not in view the Recent Stills button below the lists will flash, clicking this button will switch to view the Recent list.





Taking Stills to Air

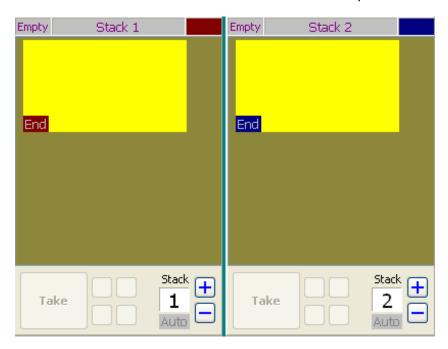
Any still in the stacks or lists can be very quickly taken to air by simply dragging the still and dropping onto the required output mimic in the lower centre of the main display.



The code x20 at the top left of the Main 1 mimic indicates that there will be a 20 frame crossfade to the new image as it dropped.

The stacks can be used as a more ordered method of taking stills to air.

There are two stacks on the left of the main screen termed Red and Blue, after starting a New Session these will be blank other than for the yellow end of stack marker.



The two new stills can be drag and dropped in to the left hand (Red) stack



Now Stills 12 and 10 are in the Red stack, still 12 has an orange border indicating that it is currently on the Pvw 1 output.



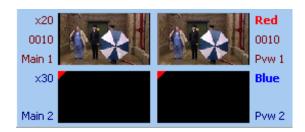
Clicking the Take button on the Red stack transfers still 12 to Main 1 and still 10 to Pvw 1



Now still 12 has a red border indicating that is on-air and still 10 an orange border as it is on $Pvw\ 1$



Pressing the Take button once again will move still 10 to Main 1



and as the stack has reached the end the Take button is disabled.



Clicking on either of the up arrows will move the preview highlight towards the top of the list, re-enabling the Take button.

Double-clicking on any still in the stack will transfer it to the Preview output, the Take button will then transition the still to Main output.

Installation

The layout of the video BNC and multiway connectors on the rear of the ImageOn computer are:-

8 port '3D' version

	Ref 4 on Multi	0	Out 2		Ref 3 on Multi		Ref 5 on Multi
0	Out 4A	0	In 2	Ο	Out 3A Video	0	Out 5A Video
0	Out 4B	0	Out 1	0	Out 3B Key	0	Out 5B Key
0	In 4A Video	0	In 1	0	In 3A	0	In 5A
Ο	In 4B Kev	0	Ref 1+2	Ω	In 3B	Ω	In 5B

7 port '2D' version

		0	Out 5	0	Out 3	0	Out 7
		0	In 5	0	In 3	0	In 7
0 €	Out 1	0	Out 4	0	Out 2	0	Out 6
0 1	in 1	О	In 4	0	In 2	0	In 6
O F	lef 1	0	Ref 4+5	0	Ref 2+3	0	Ref 6+7

Sometimes the output numbering may be different due to the enumeration of Windows PCI cards, however on startup each output will display a numbered ident image, from this the outputs can be <u>assigned</u> as required via the Engineering|Output Patch menu.

For example output 4 defaults to the image below on startup



Functions on the 3D version are normally:-

Card1		Multiway	
Card1	Out 1A	Not Used	
Card1	Out 1B	Not Used	
Card1	In 4A	SD/HD-A grab input	Grab In-A
Card1	In 4B	HD-B grab input	Grab In-B
Card2	Out 2	Output 2 SD/HD	Main 2
Card2	In 2	Not Used	
Card2	Out 1	Output 1 SD/HD	Preview 1
Card2	In 3	Not Used	
Card2	Ref 1+2	Reference	Out 1+2
Card3		Multiway	Out 3 Ref
Card3	Out 3A	Output 3 HD-A	Main 1-A
Card3	Out 3B	Output 3 SD/HD-B	Main 1-B
Card3	In 5A	Not Used	
Card3	In 5B	Not Used	
Card4		Multiway	Out 5 Ref
Card4	Out 5A	Output 5 HD-A	Movie 1-A
Card4	Out 5B	Output 5 SD/HD-B	Movie 1-B
Card4	In 5A	Not Used	
Card4	In 5B	Not Used	

Functions on the 2D version are normally:-

Card1	Out 1	Not Used	
Card1	In 1	SD/HD grab input	Grab In
Card1	Ref 1	Not Used	
Card2	Out 5	Output 5 SD/HD	Preview 2
Card2	In 5	Not Used	
Card2	Out 4	Output 4 SD/HD	Main 2
Card2	In 4	Not Used	
Card2	Ref 4+5	Reference for Out 4+5	
Card3	Out 3	Output 3 SD/HD	Preview 1
Card3	In 3	Not Used	
Card3	Out 2	Output 2 SD/HD	Main 1
Card3	In 2	Not Used	
Card3	Ref 2+3	Reference for Out 2+3	
Card4	Out 7	Output 7 SD/HD	Movie 2
Card4	In 7	Not Used	
Card4	Out 6	Output 6 SD/HD	Movie 1
Card4	In 6	Not Used	
Card4	Ref 6+7	Reference for Out 6+7	

Remote Operation

ImageOn is supplied with a KVM (Keyboard, Video & Mouse) CAT5 extender.

The Local end of the KVM is connected to a PC USB port and the VGA output of the graphics card, the Remote end is connected to the VDU, keyboard, mouse and XK-pad, the Remote end also requires an external power supply.

The Local and Remote ends are connected via a direct CAT5 cable route.

To set up the KVM for first use:-

- 1, switch off the PC
- 2, connect the Local end to the PC and plug the VDU to be used remotely into the Local end video output
- 3, plug keyboard and mouse directly into PC
- 4, repower the PC

This will store VDU identity in the Local end so that it can be correctly reported back to the PC graphics card.

Connect up the Local and Remote KVM units as required.

The KVM has settings covering various lengths and types of interconnecting cable, these are accessible via the Remote end keyboard.

- 1, On the Remote end set DIP switch 1 to On, the keyboard Num Lock, Caps Lock and Scroll Lock should flash in sequence
- 2, Set cable type press Esc then 'C' (Num Lock and Caps Lock should flash) and press appropriate number for cable in use
 - 1 CAT 5
 - 2 CAT 5e
 - 3 CAT 6
 - 4 CAT 7
 - 5 CAT 7a

Press Enter to accept selection or Esc to cancel

- 3, Set cable length press Esc then 'L' (Scroll Lock and Caps Lock should flash) Home will load a default value or type the length in metres (50..300), then press Enter to accept selection or Esc to cancel
- 4, Set Video gain press Esc then use the left and right arrow keys to adjust the level or press Home for default value, video gain adjustments are live and are saved automatically.

Image Data Storage

The stills image data is stored on the E:\ drive which is configured as a mirrored RAID, this was initially set up to use the motherboard Intel RAID controller, later builds use the software RAID within Window 7.

The following describes the process of converting from the Intel RAID to the Windows 7 mirror.

Note this should only be attempted by those experienced with low level operation of PCs, please read all the instructions before starting the process.

- 1, Run up the PC and create a temporary folder on the F:\ drive
- 2, Close down all applications
- 3, Copy the entire contents of E:\ into this new folder.
- 4, Reboot the PC and repeatedly press Ctrl+I when POST screen appears
- 5, When Intel Raid configuration screen appears select the option 'Reset Discs to Non-RAID'
- 6, Select discs currently forming the RAID
- 7, OK prompts that warn of data loss (as it is mirror the data should be left intact)
- 8, Exit Intel RAID configuration and continue with reboot
- 9, In Windows close down all applications and restart PC
- 10, On restart close down all applications
- 11, Check to see if the E:\ drive and its data are still present, if not copy back from F:\ backup
- 12, Open up Disc Management
- 13, Find the Offline drive that is the same size as the original E:\ drive (1TB)
- 14, Place this drive Online and it should be allocated the drive letter G:
- 15, Select 'Delete Volume' on this new volume
- 16, On the E: drive select 'Add Mirror' and then choose the unallocated drive that was just deleted to be the target.
- 17, Windows will now resync the drives and the PC should work normally during the background build of the mirror.

As a result of the drive changes the sharing options on E:\ may have been lost these can be reset using the following steps:-

Share "Shared Images" folder

Right-click Shared Images folder
Share with Specific people
Add "Everyone" with R/W access (not execute)

Right-click Shared Images\Temp
Share with nobody

Getting Started 1

Stack

All Stills Recent Including text Y

₽₹

Still Information

Today Yesterday

This Time Last week

Red:Picture

+ 1

Numbers



sv9001t_chart_10to16bit_

Clear Filter> All Local Stills (231)

x20

x30

All Local Stills

Sunset_8A8

Load Still from File...

GPI In

Red

Live

Grab

The main ImageOn screen is shown below

The upper part of the display is split into three sections, on the left are the two Playout Stacks termed Red and Blue, and on the right the stills library.

Stack +

Auto 🖃

ReNumber

+0

6

₽

to 2000

Search Filters

1000

Between dates 07/02/12 07/02/12 Dates...

**In some versions the right hand stack may be referred to as Green to match the colours on the external button pad.

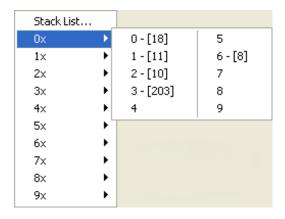
Playout Stack

The Red stack on the left hand side has stack 1 loaded



the + and - buttons will load the next/previous stack number.

Alternatively right-clicking on the stack number will open up a menu tree to select any stack number.



The numbers in square brackets show the number of stills contained in each stack, stack numbers 0 and 99 are reserved and may not be accessible.

If the <u>Auto Preview Stack</u> option is selected then on loading a new stack, the first item in the stack will be cut to the associated preview output.

In the stack display below, the stills are bordered in different colours:-



None Still not selected to either Preview or Main

Red Still is On Air

Orange Still is Previewed and will be taken to air on the next transition, double-clicking a still will select it as previewed the item

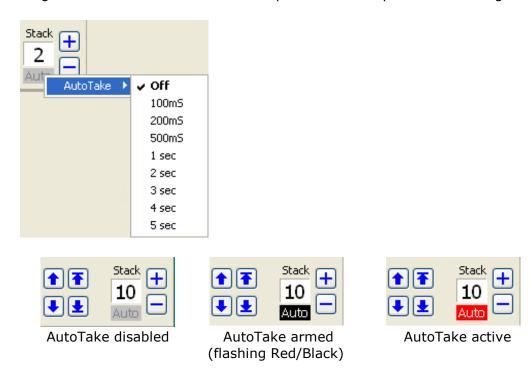
The 4 arrow buttons in the bottom centre of the display control the position of the orange Preview highlight, the highlighted still is automatically copied to the Preview output

The Take button transitions the Preview still to the output, Auto controls the AutoTake function

The AutoTake option is available independently on every stack number. When AutoTake is enabled the stack will show a white on black 'Auto' label under the stack number. When made active the text will be white on red and will automatically 'Take' stills at the preset interval.

Normally the AutoTake option will control the Red and Blue stacks independently, if however the <u>Parallel Control</u> option is enabled then both stacks will cut automatically, using the setting made for the Red stack.

A right-click menu is available to set up the AutoTake period in the range 0.1s..5s



On the right hand Blue stack there is a further option Spool.

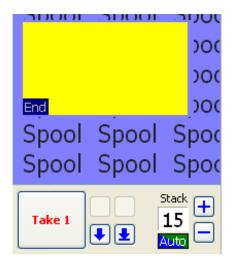


The Spool mode is an extension of the AutoTake function which can accurately Cut stills to air at 1, 2 or 3 frame intervals, any transitions set on the individual stills are ignored.

Cutting at a 1 frame interval will simulate a movie, however the speed of access to individual stills is limited so the maximum number of stills in a stack being 'Spooled' should be limited to 16.

If an extra movie output is required then the Spool option can be used but with only one still in the stack. This single still must be grabbed via the <u>Trim</u> window from anywhere in the movie and loaded into the Blue stack.

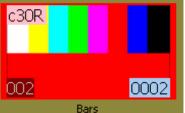
This setup will spool consecutive frames from the movie file to the Main 2 stills output.



Spool Running

The Blue stack highlights and Main 2 mimic will not be updated in Spool mode, the only indications will be the Auto button being coloured Blue/Green and the word Spool drawn in the background of the blue stack.





The still images in the stack show three items of information,

0002

lower right panel with pale blue background, is the Local Still number - this will be shown as ???? if no number has been assigned.

002

lower left panel with dark Red/Blue background for Playout Stacks 1/2, shows the position of the still within the stack.

c30

upper left panel with pink background shows the <u>transition</u> to be used when taking this still to air

The Transition panel display includes the transition type, duration and direction, an entry of 00 indicates a cut.

Transition h =

h = horizontal wipe

v = vertical wipe

c = circle wipe

x = crossfade

L = horizontal slide to left

R = horizontal slide to the right

T = vertical slide to top of frame

B = vertical slide to bottom of frame

H = horizontal push

V = vertical push

Duration

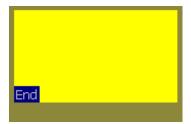
xx in frames

00 = cut

Direction

R = reverse

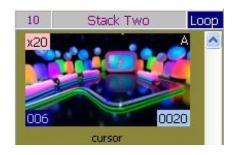
At the end of all stacks is the End of Stack Marker shown below



Single and multiple Stills within the stack can be rearranged using the normal Windows drag and drop techniques.

The three panels along the top of the Stack show the number of stills in the Stack, the Stack name and loop mode - the Loop mode can be toggled by clicking on the top right Red/Blue panel.

Clicking on the top left panel will temporarily hide the labels on the stills, as show in the image on the right below.





See <u>Stack Menu</u> for details of the menu options available within the stack

At the bottom of the ImageOn screen is a status bar split into four sections - from the left:-

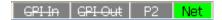
Xkey keypad messages

Red:Picture

Hint messages

Hint messages

Interface enables GPI In, GPI Out, P2 (Serial VTR) and network (import and export stills)



If the interface is available clicking on the panels will toggle enabled/disabled, enabled options are shown on a green background.

GPI In Click to toggle On/Off

Grey=Disabled Green=Enabled Blue=Loopback Red=GPI Rx

GPI Out Click to toggle On/Off

Grey=Disabled Green=Enabled Blue=Loopback Red=GPI Tx

P2 Control Click to toggle On/Off

Grey=Disabled Green=Enabled Red=Command Rx Italic=No VTR data

Net (UDP Control) Click to toggle On/Off

Grey=Disabled Green=Enabled Red=Command Rx

On the far right is the Movie Record section



Clicking on the Red Record button will start recording and the icon changes to a green square on a flashing background. The progress of the recording is shown by a red bar overwriting the green bar from the left hand side. Recording is a on a continuous loop so in this example after 15min the material at the start will be overwritten



When recording - clicking on the green button will stop the record. Also the <u>eb1 and eb2</u> buttons on the remote keypad will mark In and Out point respectively and be indicated with arrows as shown below



At the top of the ImageOn screen just below the menu bar are user messages



When more than one message is pending then the right hand button will be enabled



Clicking on this button will display a list of all pending messages

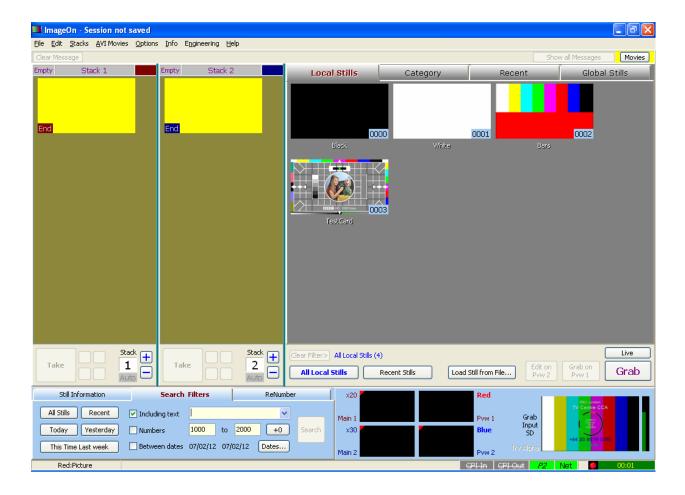


Getting Started 2

Getting Started 2

To start with an empty session use the <u>New Session</u> option, this will remove all stills from the stacks along with Local, Category and Recent lists leaving only the system images of black, white, bars and testcard. The yellow images in the stack columns are the end of stack markers and are always present.

Note – all previous images are maintained in the Global List which holds all images ever loaded into ImageOn, so saved sessions can be fully restored.



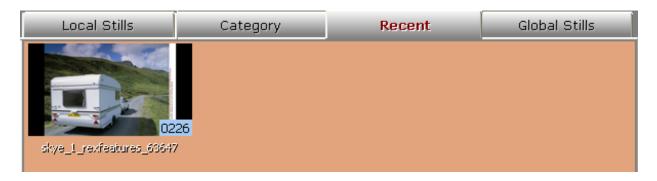
There are several methods of loading stills into the Local list and stacks:-

Grab from live input	Click 'Grab' button in lower right of display
Load from USB stick	Click 'Load Still from File' in the lower right of the display - assumes source uses square pixels
Drop files into Shared folder	The Shared folder is accessible on a network and any jpg or uncompressed image files in bitmap, targa, png or tiff format in that folder will be automatically loaded - assumes source uses square pixels
Transfer from Global list	The Global list contains all stills in the system and any stills can be copied in to the Local list

When new stills are loaded they will appear in the Recent list on the right of the screen, if the Recent list is not in view the 'Recent Stills' button will flash.



Selecting the Recent list shows the newly loaded stills



When stills have been loaded they will appear in numerical order in the Local list section on the right of the display, new stills will usually be found at the bottom of the list (alternatively the sort order of the list can be <u>reversed</u>). These stills can then be drag and dropped into the stacks on the left ready for playout.

For immediate taking to air stills can be drag and dropped directly onto the outputs at the bottom of the screen.



The red tags at the top left corner of the output mimics indicate that no video output port has been assigned to that ImageOn output.

In this example the new still has been given the next free number 226, it is not at the end of the list as an existing still has a higher number of 1234



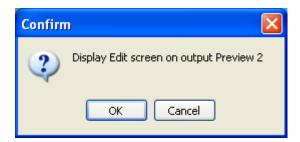
The grab input will appear in the lower right display window, it can also be routed live to a preview output, the <u>Monitor Grab Input</u> option sets which preview output will be used and the button below will route the grab input directly to the selected preview output. Any subsequent take of a still to Pvw2 will cancel this option



Similarly the edit output of ImageOn (the computer VDU image) can be routed to the Preview 2 output.



A confirmation dialog is shown before Preview 2 output is changed, any subsequent take of a still to Pvw2 will cancel this option.



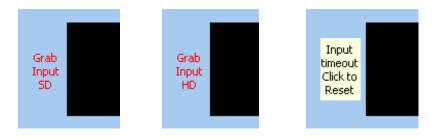
There are some options defining which part of the Edit screen is shown, these are set via the Options menu



In the lower right hand corner of the screen the Live, Grab and Grab on PvwX buttons will be disabled if there is no Grab input port assigned or there is not valid Grab input signal.

Similarly Edit on PvwX and Grab on PvwX will be disabled if no output port is assigned to those Preview outputs.

The format of the input signal can be automatically detected from the three options SD, HD and HD+Alpha.



If no input is detected in any format for a period of 5 minutes the Grab Input will be disabled.

The input can be re-enabled by clicking the message panel or pressing the CLR button on the <u>remote keypad</u>

With a valid Grab input signal clicking on the Live button will toggle between Live/Frozen input signals.





The images displayed in the Grab input window and on the Grab on PvwX output are delayed versions of the live input, the amount of delay can be changed with the <u>Grab Look Ahead Buffer</u> setting.

Stills can be moved between Lists and Stacks and within Stacks, individually or in blocks by using the usual Windows Ctrl and Shift selection.

To start playout from a stack:-

- Move orange Preview highlight onto the still to be previewed, by double-clicking on still or by using the on screen up and down buttons
- 2 Click on Take button to transfer still from Preview to Main output

When the last item in the stack has been 'taken' to air the Take button will be disabled.

If the stack is <u>Looped</u> then when the last item has been taken to air the first item in the stack will be automatically be loaded in to the preview output and the Take button reenabled.

Getting Started 3

Getting Started 3

At the lower left of the display under the two playout stacks are a set of tabbed pages.

Still Information displays metadata stored with still

Search searches all lists using various parameters renumbers a single still or set of stills

Still Information



This tab is enabled when a single still is selected in the Local, Category or Recent Lists.

Selected stills are indicated with black text on green description text.



The Still Number is the number shown on pale blue background in the lower right corner of the on-screen image.

When a new still is loaded either by grabbing from a live input or from disc file, the default action is to automatically assign the next free number to the still.

The Still Number of the selected still can be changed by typing in a new value in the range 10..9999, still numbers 0..9 are reserved for system images. If the number entered is valid and not already assigned the Change button will be enabled, clicking this button will make the set the Still Number.

The Next Free Number button finds the next available number.

The Description field is by default set to the original filename and can be freely edited, this text is shown under the still in the stack and list displays.

The Loaded section shows the time and date when the still was loaded into ImageOn

Capture Index is a number used internally to uniquely identify each still.

Filename is the name of the original source file for the selected still. Hovering the mouse pointer over the filename will display further details in the status bar, including the original file size and format, in the example below the file was a 5616x3936 jpeg.



The Comments section can be used to supplement the Description field, both the sections are used when searching for a text entry.

Search



This tab enables stills to be located by using certain search criteria, the result of the search is shown in the selected list display.

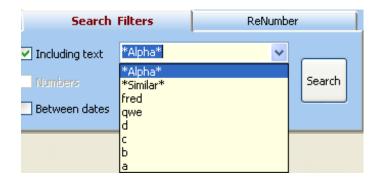
On the left are a set of five quick search buttons

All Stills	Lists all stills in the Local/Category/Recent/Global sorted by Still Number with UnNumbered stills first
Recent	List stills loaded in the last XX minutes, the Recent time period is set via the Options menu
Today	List all stills loaded in the last 24 hours
Yesterday	List all stills loaded between 24 and 48 hours ago
This Time Last Week	Lists all stills loaded on this day last week

The Search button on the right hand side initiates a search defined by the Text, Number or Date options immediately to the left of the button.

The Text search will scan all the stills in the selected list checking both the Description and Comment fields.

Text can be typed in directly or selected from previous searches in the drop down list, the entry *Alpha* is always present and will sort the stills with the Descriptions in alphabetical order.



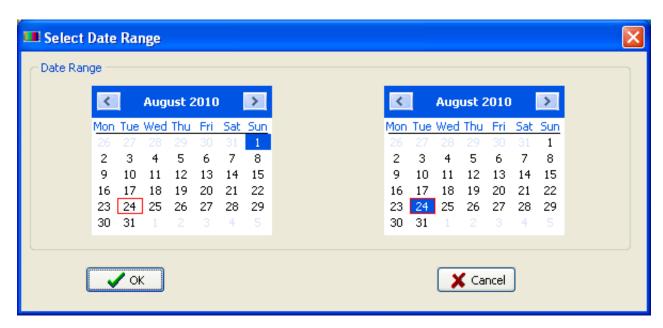
The fixed option *Similar* will sort the stills and group duplicate stills.

The Numbers search displays any stills in the number range, this only operates on the Local, Category and Recent lists as the stills in the Global list are not-numbered.



The range of numbers can be typed in directly or using the button immediately to the right of the 'to' number, this button defaults to showing '+0', right-clicking the button will cycle through values +0, +10, +100 and +1000, left-clicking the button will add the selected value to the 'From' number.

The final option is to search on a date range, shown below is the date selection dialog set to search between 1st and 24th August 2010 inclusive.



If required both the Text and Date search can be selected together, forming a search for text between certain dates.

After any of the search options has been initiated the current list will change to show the appropriate stills and the a message will appear under the list confirming how the stills have been sorted, clicking on the 'Clear Filter' button will revert to showing all stills.



ReNumber



This tab allows a single still or set of stills to be renumbered, the starting number can be entered in the left hand edit box and the end number will be automatically calculated.

A message will be shown if any numbers in the number range selected are already assigned.

The Next Free Block button will find the next free block of consecutive numbers.

If required the still number can be removed by using the UnNumber button.

Getting Started 4

Getting Started 4

At the lower right of the display are a set of five images.



The four images on the left are copies of the Main and Preview outputs of the two playout stacks, the image on the right is the live signal routed to the grab input and the green bars are the levels detected on embedded audio channels 1..4 (Dolby data will be shown as a red bar).

The legends alongside of the left of the Main images are:-

Top <u>Transition code</u> - used when directly taking stills to the Main outputs

Centre Still number - if defined

Bottom Output name - Main 1/2, Pvw 1/2

The red tags at the top left corner of the output mimics indicate that no video output port has been assigned to that ImageOn output.

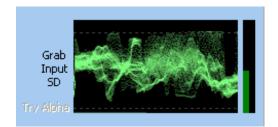
For quick selection of stills to air, a still can be drag and dropped from any list or Main/Pvw 1/2 images, directly to any Main or Preview output.

The legend alongside the Grab Input image indicates whether the source is SD or HD, if SD is detected it will be automatically upconverted to HD internally.

The 'Try Alpha' text will be enabled when the grab input is configured for Video+Alpha or 3D operation, when enabled clicking on the label will recheck the input format.

Right-clicking on the grab image a popup menu allows the displayed image to be temporarily switched to view the Alpha channel or the luminance waveform

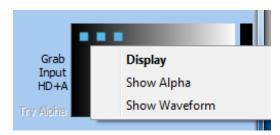




When 3D mode is enabled and a dual channel input signal is detected (Video+Alpha or Left Eye+Right Eye), the input grab input will be labeled 'HD+A'.



Right-clicking will now show the option to Show Alpha



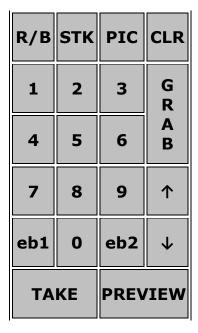
The default output port ident for the Video outputs is a linear luminance sawtooth as shown above with coloured blocks indicating the output port number.

The Alpha outputs are idented with a luminance pyramid as shown below with Show Alpha selected.



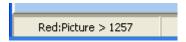
External Key Pad

An external USB connected key pad is available, which can be used for most still playout operations.



R/B	toggles between control of Red and Blue playout stacks, button backlights change colour to match selection
STK	selects Stack number entry mode
PIC	selects Picture number entry mode (default)
CLR	clear number entry – stop movie recording – re-enables Grab Input
GRAB	grab signal on input as new still
GRAB+hold	repeatedly grab input as new still
\uparrow	move Preview highlight up one item
\downarrow	move Preview highlight down one item
PREVIEW	PIC - copy entered still number to preview output STK - copy entered stack item/poll number (1999) to preview output
	PIC - transition entered still number or still on preview to main
TAKE	Red or Blue output STK – load stack number (198) to Red or Blue playout stack
09	numeric entry keys
CLR + ↑	move Preview highlight to top of stack
CLR + ↓	move Preview highlight to bottom of stack
	undo last change to playout stacks
eb1+ eb2	Start recording of Grab input – depends on options
eb1	When recording – Mark In point
eb2	When recording – Mark Out point
eb1+hold	When not recording – recues Movie 1
eb2+hold	When not recording – recues Movie 2
eb1+0	Play/Stop Movie 1 – depends on options
eb2+0	Play/Stop Movie 2 – depends on <u>options</u>
CLR+0	Stop recording save marked/whole section to next free movie tile
CLR+1	As CLR+0 and load/play on Player 1 – depends on options
CLR+2	As CLR+0 and load/play on Player 2 – depends on options

The key presses are copied to the lower left status panel.



If two external pads are connected the key presses are reported in two panels as below.



The keypads are independent of each other and are not linked.

If a single keypad is in use and a second keypad is added then it will not be detected automatically, in this case use <u>ReScan for Xkey Pads</u> in the Engineering menu or alternatively restart the application.

To recall a stack:-

- 1, press STK which will then become illuminated
- 2, enter number 1..98 if an error is made press CLR and re-enter number
- 3, press TAKE to load stack, number entry mode automatically returns to PIC

To recall a still and cut to the main or preview output:-

- 1, press PIC which will then become illuminated (by default this button is illuminated)
- 2, enter number 0..9999 if an error is made press CLR and re-enter number
- 3a, press PREVIEW to cut to the preview output
- 3b, press TAKE to transition to the main output

To transition still from preview to main output

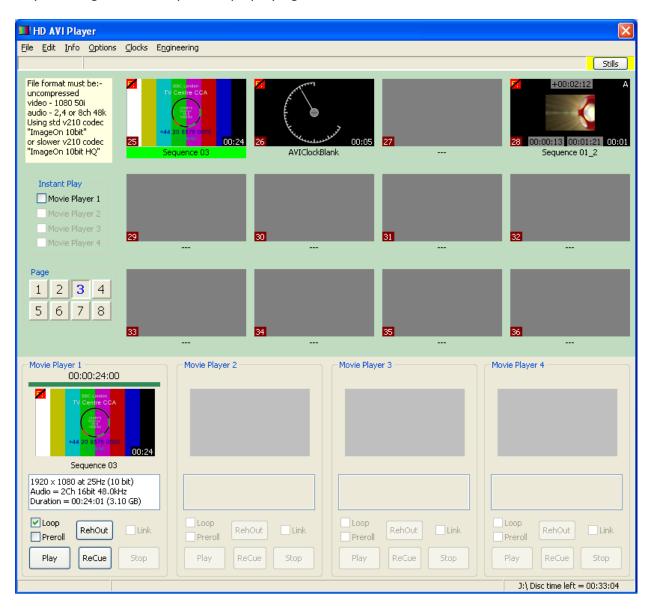
1, press TAKE

Getting Started 5

Getting Started 5

The built in HD AVI player allows selection of up to two HD AVI files for simultaneous playout - Movies 3 & 4 are only available on some versions.

The movie playout is performed in parallel with the stills Stacks and closing the HD AVI Player dialog will not stop the clips playing.



The files used for playout must be uncompressed 1080/50i HD AVI files in 10 bit (v210) format with 2, 4 or 8 channel 48kHz 16bit audio.

In the upper section of the screen are 12 movie 'Tiles' these can be preloaded with HD AVI files, the files can then be drag and dropped in to the appropriate movie player.

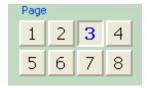
The function keys F1..F12 will load movies from the displayed Tiles into movie player 1.

The total amount of storage available is approximately 40mins of uncompressed HD material (an option provides upto 3 hours of storage).

Note - the AVI files must be stored on the ImageOn F:\ drive as this is configured as a RAID disc set to accommodate the very high data rates involved with uncompressed HD clips.

There are 8 pages each of 12 tiles totalling 96 clips, the pages are selected using the Page buttons on the centre left of the screen.

Note the clips are intended to be 'short' – no more than a few minutes long due to the restricted amount of storage.

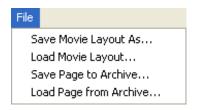


Options for loading and saving the set of 96 movie tiles are available in the File menu

The image shown in the Movie tiles and players, is by default set to be the Ident frame selected automatically as the first non-black frame or manually via the trim dialog.

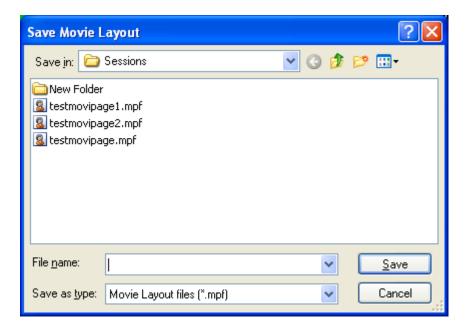


If the <u>Live Movie Mimic</u> option is checked then the Movie Player image will track the movie output when played.



Save Movie Layout As Load Movie Layout Save Page to Archive Load Page from Archive Saves layout of all movie pages to disc Loads layout of all movie pages from disc Save current page in Archive format to disc Loads from Archive format disc file to current page

Save Movie Layout

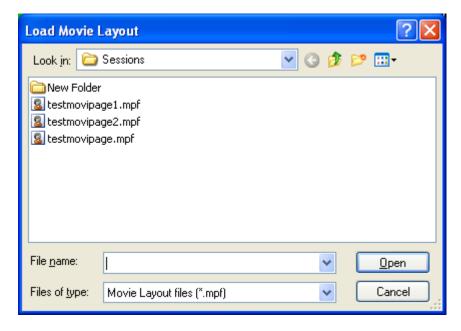


Save layout of movie pages along with trim points and options to disc – does not save the movie files.

Load Movie Layout

Before loading a new layout the option is given to save the current layout to disc.





The layout contains the allocation of clips to Tiles, trim points, options and Movie Player clips but does not include the movie files.

Save Page to Archive

When a large number of movies are required there may not be sufficient space on the F:\ drive so the movies have to be stored externally.

The transfer time of movie files to/from external storage can be significant if the files are several minutes long. As an example - 5 minutes of material would take around 6m 30s to transfer over a 1Gb/s network connection.

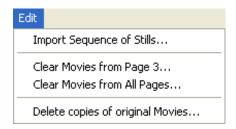
A lossless compression can be applied to the movie files so reducing storage space and transfer time at the expense of a slightly longer time when initially saving to disc.

The compression works best when the images are computer generated with large areas of the same colour.

Load Page from Archive

Load a Movie Page that has been previously saved in Archive format

Options for clearing movies and deleting original movie files are available in the Edit menu.



Import Sequence of Stills
Clear Movies from Page
Clear Movies from All Pages
Delete Copies of original Movies

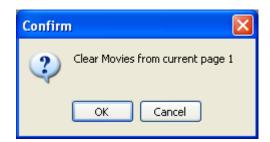
Load sequence of stills to form a movie Remove all movies from current page Remove all movies from all pages Remove source movies that have been converted to AVI format

Import Sequence of Stills

Some animations are supplied as a <u>sequence of still frames</u> instead of a movie clip, this menu option will construct an AVI movie file from the individual frames.

Clear Movies from Page

Removes all movies from the 12 tiles on the currently selected page.



Clear Movies from All Pages

Removes all movies from all 8 pages.



Delete Copies of Original Movies

When movie files are loaded it is often necessary to convert them to a format compatible with ImageOn, the original files are saved to disc and can be deleted using this option



The file structure for the movie disc F:\ is as below

F:\AVI Files F:\AVI Files\Keep F:\AVI Files\Watch\Source F:\AVI Files\Watch\Output folder for new compatible movie files System files and movies files for long term storage originals of converted movies – files can be deleted converted movies and stills made into movies



Show Alpha Channels
Analyse Movie Disc Usage

Show Alpha Channels

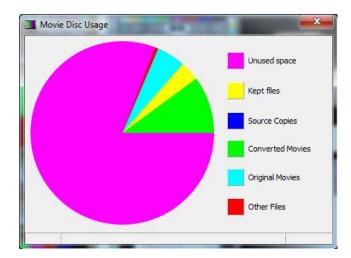
The 3D version of ImageOn allows Alpha Movies to be associated with the Video Movies, this menu option temporarily displays the Alpha images in the Movie Player. The letter A in the upper right corner of the Movie Tile indicates that an Alpha movie is loaded.





Analyse Movie Disc Usage

To assist with housekeeping the type and size of files stored on the F:\ drive can be viewed with this option. The F:\ drive typically has a limit of 40mins of HD material.





Recue at End of PlayList
Show Audio Bargraphs
Variable Audio Gain
Enable XKeypad Record
Enable XKeypad Playback
Xkeypad Options
PlayList Mix Duration
Rehearsal Time
Movie Recue HoldOff Time

Open Abobe Media Encoder

At end of last item Recue to first item in PlayList Show audio level bars alongside movie mimics Simple gain control of audio channel levels Allows movie recording via external XKeypad Allows movie playback via external XKeypad Options for Xkeypad recording Set duration for mix between items in a playlist Set Out Point rehearsal time Defines a wait period after the last PlayIst item has stopped before recueing to the first item Run external media convertor

Recue at End of PlayList

Allows a Playlist to be automatically recued to the start frame of the first item ready to be played again, only available when list is not looped.

Show Audio Bargraphs

Displays audio level meters either side of the movie mimics Chan 1+2 on the left and Chan 3+4 on right hand side.



Variable Audio Gain

See details in Trim window

Enable XKeypad Record

Recording of the Grab input can be started by simultaneously pressing <u>eb1 and eb2 buttons</u> on the remote keypad.

Enable XKeypad Playback

Playback of Movie 1 can be controlled by simultaneously pressing <u>eb1 and 0 buttons</u> on the remote keypad, Movie 1 will toggle between Play and Stop, similarly pressing eb2 and 0 buttons will control Movie 2.

Summary of Xkeypad Movie Control:-

Start recording - press eb1+eb2 simultaneously

Stop recording - press CLR

Mark In point whilst recording - press eb1

Mark Out point whilst recording – press eb2

Stop recording and save marked section to next free movie tile - CLR+0

As above but also load then play on Player1/2 - CLR+1/2

Toggle Play/Stop of Movie 1 - eb1+0

Toggle Play/Stop of Movie 2 - eb2+0

Recue Movie 1 when stopped or playing – eb1 hold for 2 sec

Recue Movie 2 when stopped or playing - eb2 hold for 2 sec

Xkeypad Options

Auto Loop Movie Auto Load Movie ✓ Auto Load+Play Movie

On completion of grab input recording the clip can be saved and set to Loop when loaded. Further options allow the clip to be automatically <u>loaded</u> onto Movie Player 1 or 2 and loaded and set to play.

PlayList Mix Duration

Sets the transition between multiple movies loaded into one player as a Playlist, this is not available if the list is in Single Step mode unless the Mix out of Loop option is triggered.

The mix time is shown at the top left of the Playlist, it will be in red text if one of the clips is shorter than the length of the mix in which case a cut will be performed for that clip.



Rehearsal Time

This is used when trimming the AVI files can be preset with this menu, this sets how many seconds before the OutPoint to start playing.



Movie Recue HoldOff Time

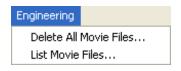
This is used when the Preroll option is set for movie replay.

When Preroll is enabled the clip will recue to the first frame after replaying the last frame. To allow for vision mixer processing, a delay can be added before recuing in the range 0..24 frames (0..960mS).



Adobe Media Encoder (AME)

The <u>Adobe Media Encoder</u> utility can be opened via the Options menu, this allows the conversion settings to be checked.



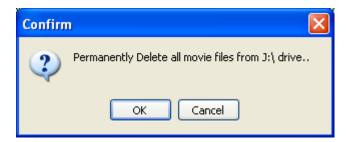
Delete All Movies
List Movie Files

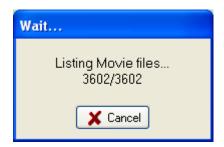
Remove all movie files from the Movie F:\ drive Selectively list and delete movie files

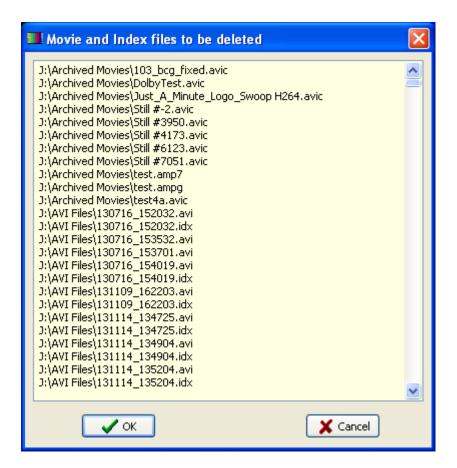
Delete All Movies

This option should be used cautiously as it will permanently remove files, due to their size the deleted files will not be placed in the Windows Recycle Bin.

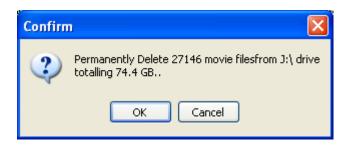
As a check there are several stages of confirmation before deletion starts.







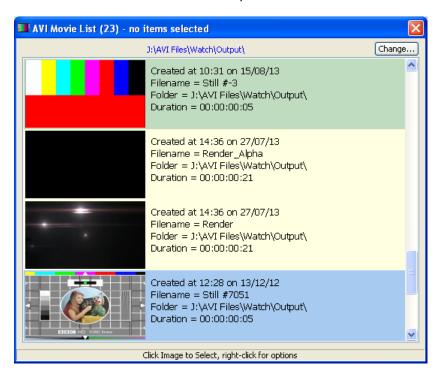
Clicking OK will display the final confirmation dialog.



List All Movies

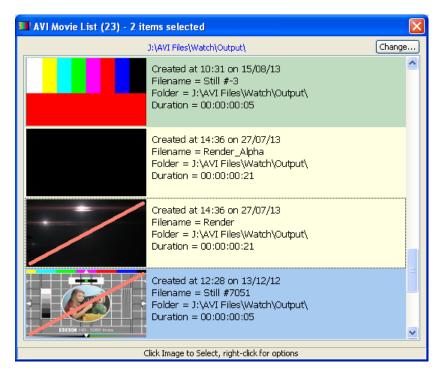
This option is for deleting specific movie files.

Initially the F:\AVI Files\Watch\Output folder is scanned, this is where converted movies, movies recorded from the Grab input and movies created from stills should be found.

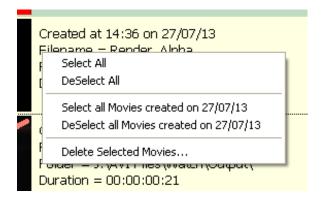


Items are displayed in date order with the most recent at the top.

Items can be selected/deselected by clicking on the movie image (ident frame) or by shift+clicking to select sequential items.



A right-click popup menu is available to assist selection including selecting movies created on a specific date and deleting the selected movies.



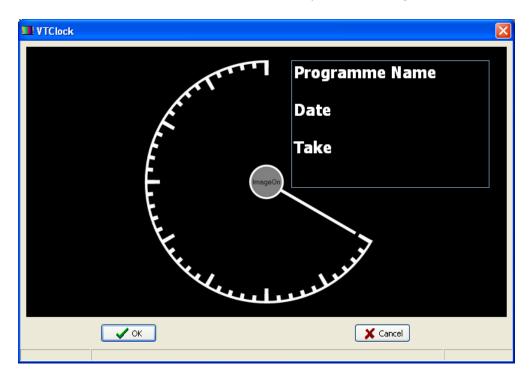
On selecting the Delete option the final prompt dialog will be shown, clicking OK will permanently remove the selected movie files.



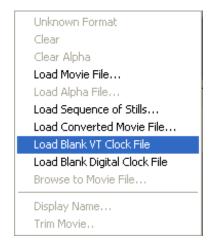
VT Clock

ImageOn has a built in VT Clock, this is stored as a 40 second countdown clock, the text is keyed on to the clock when it is played out.

The 40sec clock file can be non-destructively trimmed to give shorter countdown periods.



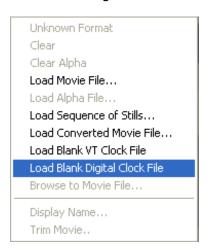
To load the VT Clock file onto a Movie Tile use the highlighted option shown below

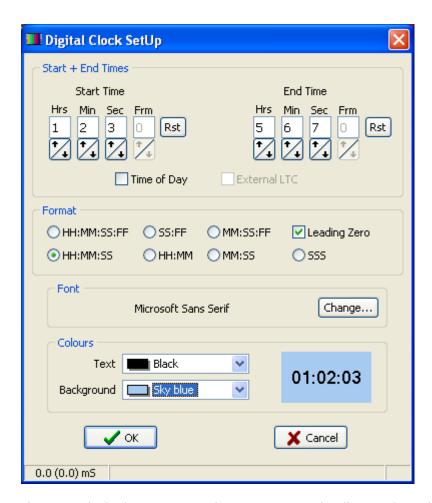


Digital Clock

A 24 hour count up/down clock is incorporated, the display format and font can be selected along with the background and text colours.

To load the Digital Clock file onto a Movie Tile use the highlighted option shown below





The Digital Clock is presented as a Movie and will run when the Movie is played, if the End Time is greater than the Start Time it will count up and stop at the End Time. Similarly if the End Time is less than the Start Time the clock will count down.

The count up/down clock timing is locked to the video frame rate.

To display the clock drag the Digital Clock from the Movie Tile onto a Movie Player

Checking the Time of Day option disables the Start and End time editors and will display the PC clock time or time read from an external timecode (LTC) signal.

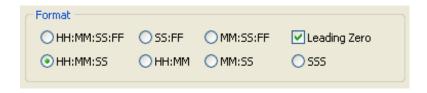


Right-clicking the 'Time of Day' checkbox and selecting Run LTCReader starts the <u>LTCReader</u> utility, this is a separate application and will only be enabled if it is installed.



If the LTCReader detects incoming LTC the 'External LTC' checkbox will be enabled, this allows the Digital Clock to follow external LTC.

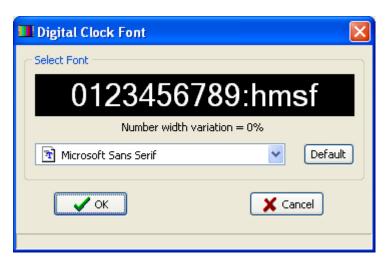
The format of the clock can be chosen from a range of options.



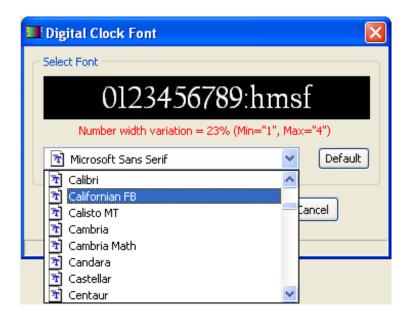
The font used to display the clock can be selected from any suitable 'Windows TrueType' font, ideally the font should be 'Tabular/MonoSpaced' to ensure the numerals align correctly.



Clicking on the Change button displays a font selection dialog, shown below with the default font.



Selecting a font which is not monospaced displays the width variation in percent and indicates the narrowest and widest numerals.

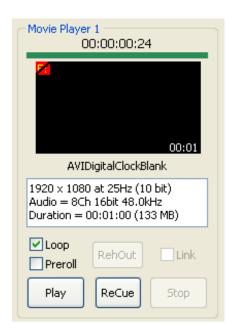


A limit of 5% has been set to avoid overlapping the numerals, any font exceeding this figure will have a message shown in red text.

Fonts with a larger width variation can be used but the numerals will overlap on the output.

To display the clock drag the Digital Clock from the Movie Tile onto a Movie Player.

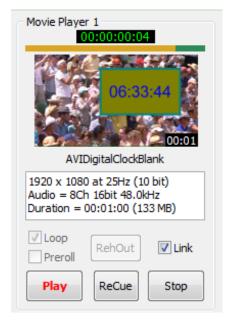
Play and Stop buttons acts as clock Start and Stop, with ReCue resetting to the Start Time if configured as Count Up/Down.





Initially the mimic display will be black and if the <u>Live Movie Mimic</u> option has been enabled clicking on ReCue will setup the clock and show the start time. The clip is automatically set to loop – the file is a 1 second loop.

Using the Arc Movie Over Stills facility can create the composite shown below



LTC Reader

This utility allows external (LTC) to be displayed on the Digital Clock.

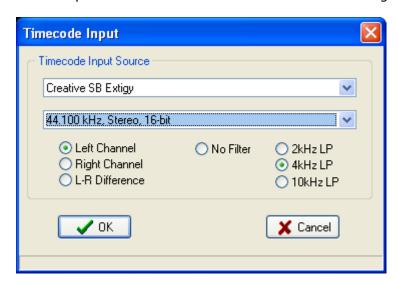
Initially it will appear as shown below where no LTC is present and the values have defaulted to the PC clock.



With a valid LTC input it displays the data from the incoming signal



The SetUp menu enables the source of LTC to be configured



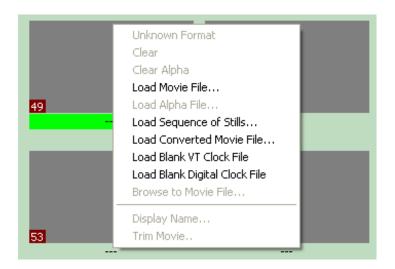
The setup above is using a soundcard left channel only with a 4kHz low pass filter.

If using a broadcast/professional source of LTC it will be in the form of balanced audio, this does not normally interface directly with PCs.

However, using the 'L-R Difference' option the Hot/Cold wires of the balanced audio can be connected to Left/Right inputs of the PC Line In 3.5mm jack. The utility will then process the signal without loading the external LTC source.

Load Movie

Right-clicking on any Movie tile will display a popup menu to load a new file.



If an attempt is made to load a file that is not compatible with ImageOn, then a warning message will be shown

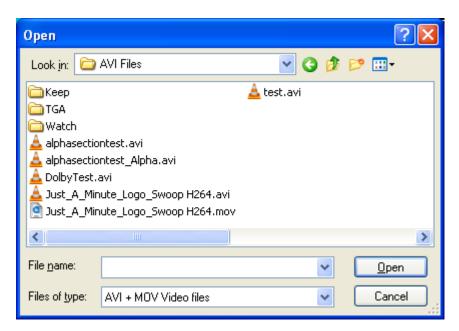


Selecting OK will open up Adobe Media Encoder (AME) to recode the file into a compatible format



See the Movie Format Conversion page for more details.

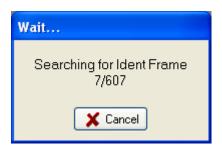
Clicking on the 'Load Movie File' or 'Load Converted Movie File' button displays a file selection dialog.



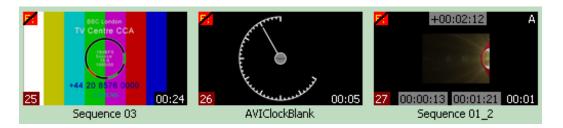
If this is the first time the file has been loaded then ImageOn will scan the file to build up an index.



When the index list has been built, a search is performed to locate the first non-black frame to be used as an ident frame.



This process can be used to load clips onto the Movie Tiles as shown below



The symbols in the corners of the Tiles are:-

Top Left Source drive - crossed if not on the ImageOn Fast drive (F:\)

Top Right Alpha movie loaded in addition to Video movie

Bottom Left Tile number

Bottom Right Length of trimmed clip in MM:SS

Bottom Centre Trimmed In and Out points

Top Centre Offset of Alpha Movie from Video Movie

Movies can be moved around the tiles by using:-

Left drag/drop Move Movie to another Tile

If dropped onto a tile already loaded with a Movie the dragged Movie will be inserted in the sequence and other

tiles moved to accommodate

Shift+Left drag/drop Move Movie to another Tile

If dropped onto a tile already loaded with a Movie the

dragged Movie will replace the existing movie

Ctrl+Left drag/drop Copy Movie to another tile

Right-clicking on a Movie tile displays a popup menu, showing the file format and a number of options.



Movie parameters Bit depth, Audio format, File size, [frame used as Ident]

Clear Remove Movie from this tile

Load Movie File Load Movie onto tile

Load Alpha File Load Alpha Movie associated with loaded Movie

Load Sequence of Stills Create a Movie from a sequence of individual still frames

Load Converted Movie File Load Movie from AME output folder

Load Blank VT Clock File Shortcut to load VTClock file
Load Blank Digital Clock File Shortcut to load Digital Clock file
Browse to Movie File Open folder containing Movie file

Move File to New Folder Clear movie from Tile and move file to new location then

reload onto Tile

<u>Display Name</u> Edit display name

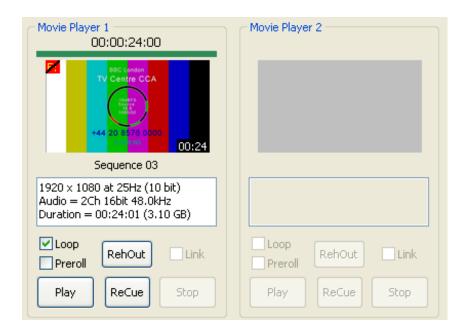
<u>Trim Movie</u> Trim In and Out points for Movie and offset for Alpha

The displayed name shown can be changed to something more appropriate



Movie Playout

To playout the clips, they can be drag and dropped from the tiles onto the Movie Players at the bottom of the screen.



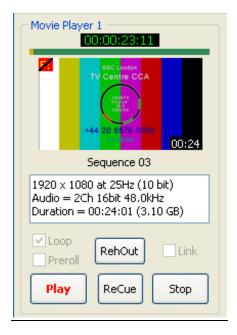
The clip can be looped indefinitely by checking the 'Loop' option.

The Preroll checkbox provides a facility for the clip to be recued to the start after it reaches the last frame, there is a hold off time in the range 0..24 frames that can be set via the Movie Recue Holdoff Time menu.

The Link option can be selected to gang together two or more players, which will then operate in synchronism, for example Video and Key signals playing on two Movie players. There are two Link chains (A & B) allowing two pairs of movies to be separately linked.

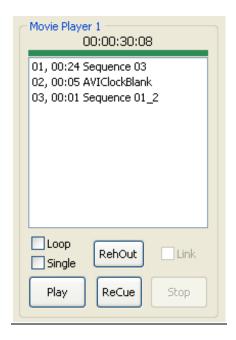
The timecode display above the image will show the time remaining within the clip, this is mimicked by the position bar below the timecode display

The movie thumbnail will not change as the clip is played unless the <u>Live Movie Mimic</u> option is selected.



The RehOut button will playout the last <u>xx seconds</u> of the clip, if the Loop option is selected then the clip will continue playing from the start – a convenient method of checking loop points on long clips.

Multiple clips can be loaded into the players by Ctrl+drag and dropping from the Tiles.



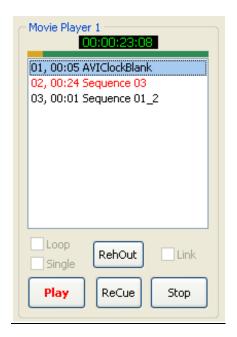
The movies are played without any additional transitions, as an option a mix can be applied via the <u>PlayList Mix</u> setting.

Selecting Loop will play the first item on completion of the last item, Loop option is not available when using PlayList Mix.

The Single option when selected will cause playout to pause after each item awaiting a click of the Take button or a press of spacebar (movie player 1 only) before continuing.

The movies can be reordered by dragging and dropping within the list, even whilst the list is being played out.

The clip currently playing is shown in red text.



Right-clicking on the list of movies displays a popup menu, if right-clicking on an clip entry the full list of options is available.

Mix out of Loop
Play Single Item
Play List from here
Render to Single File
Arc Stills over Movie
Arc Movie over Stills
Arc Settings...
Clear All
Clear Item

Mix out of Loop Mix out of a looping clip

Play Single Item Play the highlighted item then stop

Play List from here Play highlighted item then continue down the list

Render to Single File Render non looped versions of playlist clips to a single file

Arc Stills Over Movie Arc Main 1 stills over Movie 1 output

Arc Movie Over Stills Arc Movie 1 over Main 1 stills on Movie 1 output

Arc Settings Adjust Arc settings
Clear All Clear all items from list
Clear Item Clear selected item

Mix out of Loop – this item is enabled when the clip that was right-clicked was playing and the item was not the last in the list. If selected this triggers a crossfade between the current clip and the next clip, either or both clips can be individually looped. The crossfade time is set via the <u>Playlist Mix Duration</u> menu option.

There are some keyboard shortcuts available to control Movie Player 1

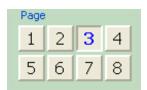
Spacebar Play

Home or Q Recue to start

Escape Stop

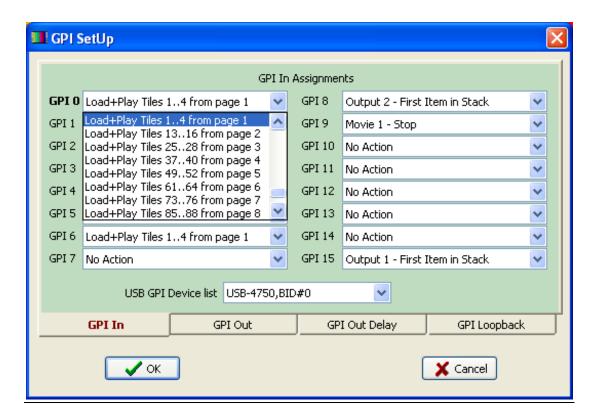
Shift+left clicking a page button will load Movie players 1..4 from the first 4 tiles on the selected page and then play all 4 players.

In the example below shift + left click on the page 3 button will load from tiles 25, 26, 27 & 28

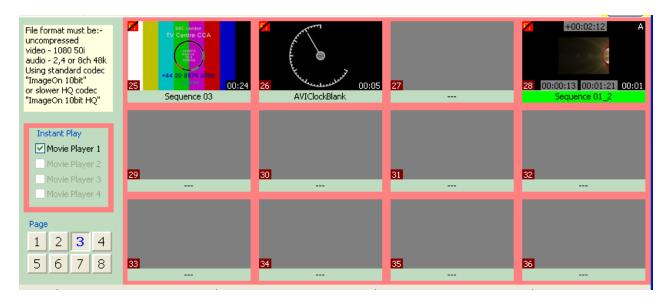


The movies will automatically play and be set to loop indefinitely (Quad Play).

This loading operation is also accessible via GPI triggers



InstantPlay



If one of the Instant Play checkboxes on the left is checked, any of the movies loaded on to the tiles can be played out on the selected output by single clicking the required tile.

There is a delay of approximately 3 frames between clicking on a tile and playout of the clip starting.

The tiles are highlighted with salmon coloured borders to indicate that InstantPlay is active.

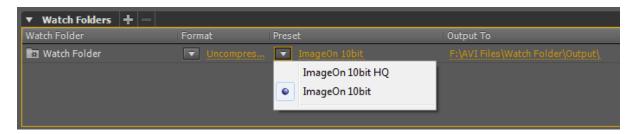
Movie Format Conversion

Some movie files required for playout may not be compatible ImageOn eg .mov, in this case conversion of movie files out by the Adobe Media Encoder (AME) utility.

First check the conversion settings in AME by opening the utility via the Options | Open Adobe Media Encoder item.

Check the destination format is correct, either "ImageOn 10bit" or "ImageOn 10bit HQ" should be selected.

ImageOn 10bit is the default and fastest setting, if frame rate conversion is required or a high quality result is essential then select ImageOn 10bit HQ, note that this option can be **very** slow.

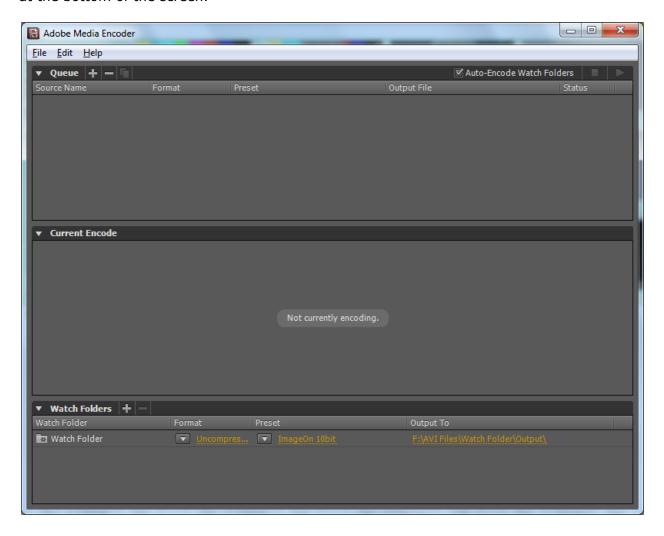


After checking the settings close AME.

Attempting to load a file incompatible with ImageOn will automatically run the AME utility.

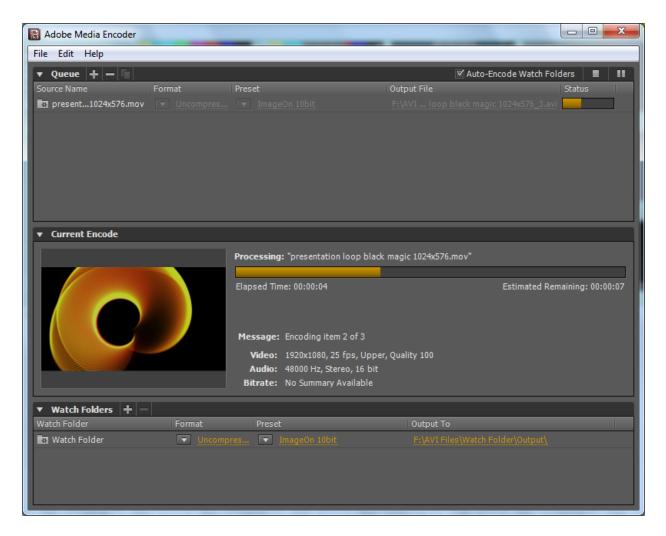


Below is the initial screen displayed by AME, with just the 'Watch' folder showing in the list at the bottom of the screen.



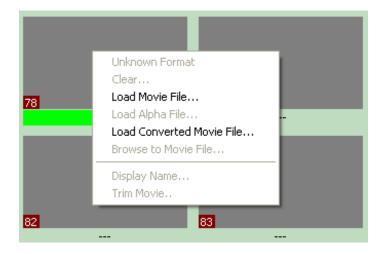
After a few seconds the file will appear in the Queue list at the top of the screen - in this case a *.mov.

Conversion will begin automatically.



When the conversion is complete the file will be removed from the list and the AME utility can be closed. AME can be left open if several movies require conversion.

Now that the file has been converted to a compatible format it should be automatically loaded onto the Movie Tile, if not it can be manually loaded using the 'Load Converted Movie File' option.

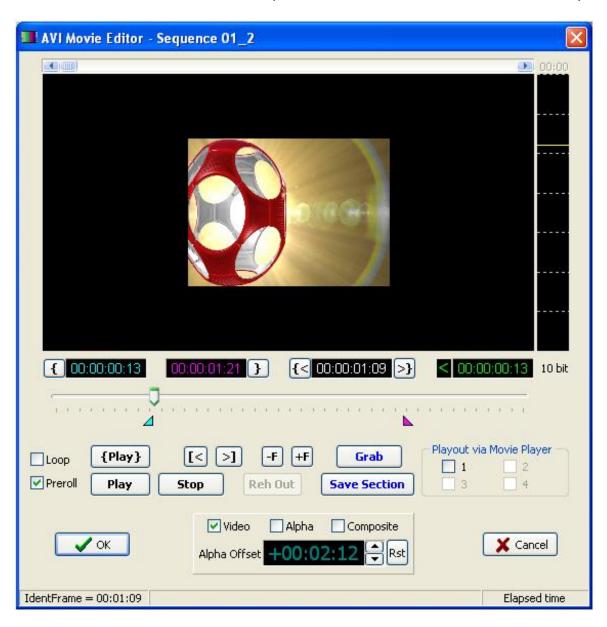


Clicking on the 'Load Movie File' or 'Load Converted Movie File' button displays a file selection dialog for the F:\AVI Files\Watch\Output\ folder.

Trim Movie

The AVI movie files can have simple edits applied for playout.

The movie can have the start and end point defined and the movie can be set to loop.



The upper section of the window shows the frame at the current timecode, in this example 13 frames in from the absolute beginning of the clip, the vertical bars to the right of the image display the audio levels from tracks 1..8.

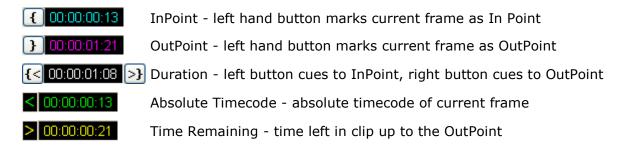
The slide bar above the image is related to the AVI Recorder and should normally be set to the left endstop (zero).

Button Functions

Under the image is a set of timecode values and a scroll bar as shown below.



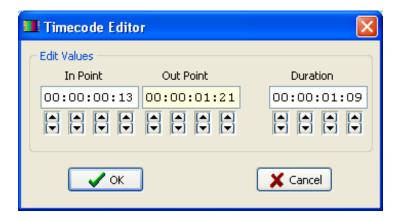
The timecode values represent:-



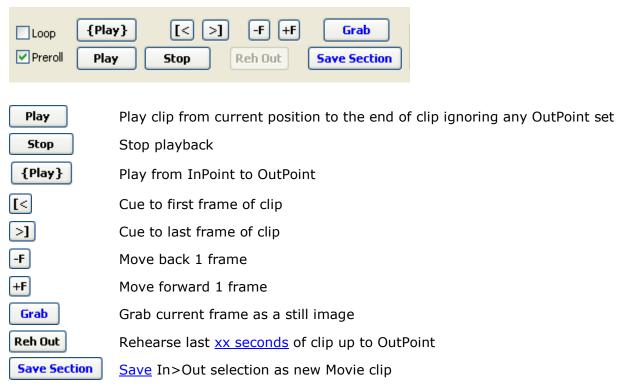
The tab on the scroll bar can be dragged to move along the timeline.

The cyan and magenta triangles below the scroll bar represent the InPoint and OutPoint markers, these too can be dragged to change the In and Out points.

Alternatively by double-clicking on the In, Out or Duration timecode a timecode editor is displayed.



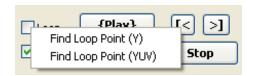
The transport control section includes the buttons:-



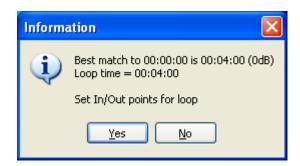
The loop checkbox allows the clip to be played continuously from InPoint to OutPoint.

In some instances it is necessary to create a seamless loop from material which has a repeating sequence of images. This can be achieved manually by marking an InPoint and then adjusting the OutPoint until a satisfactory loop is created. Reh Out is useful way to check the loop point.

As an alternative, ImageOn can detect loop points automatically, right-click on the Loop checkbox to display the popup menu below.



Find Loop Point (Y) will compare the luminance of all frames and find the best match to the current frame.



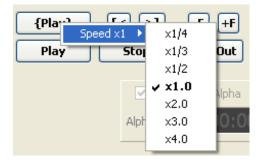
Clicking on Yes will mark the loop In and Out point in the Trim editor.

Choosing the Find Loop Point (YUV) option compares the full image content for a match and is slightly slower than luminance only .

The Preroll option causes the Movie to be recued to the start after the last frame has been played out, there is a user defined <u>delay</u> built into the preroll action.



By default ImageOn will play movie clips at normal x1 speed, there are right-click option menus on both Play buttons to change the playback speed.



The speed range is from x1/4 to x4, the audio is muted at speeds other that x1.

Any non standard speed is indicated in the top right of the movie mimic, example below show x4 and x1/4





If the movie has an associated alpha movie this will have an 'A' to the right of the speed indication.



To the right of the transport controls are a group of four checkboxes, checking an enabled Movie Player number will copy the frames displayed in the editor to the selected main movie output as a full screen preview.



When handling Alpha or 3D channels two movie files are required, these will be combined and played out simultaneously.

As these movies are two separate files they may not be aligned so that the Video and Alpha channels are timed correctly.

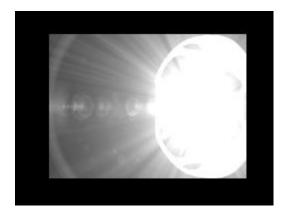
The control section shown below will allow any timing errors to be removed.



With the Video option selected just the Video Movie frames are shown

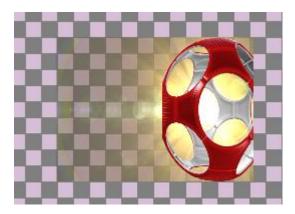


Selecting the Alpha option shows the corresponding frame from the Alpha movie



Both the Video and Alpha option checkboxes can be repeatedly clicked to toggle between the two different displays.

As an extra check a keyed version of the Video and Alpha channels can be shown by selecting the Composite option.



If the relative timing of the Video and Alpha channels requires adjustment, then an offset can be added to the Alpha channel.



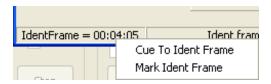
The results of the trim operations on the Movie as displayed on the Movie Tiles as shown below.



Top centre is the Alpha channel offset, bottom left of centre the InPoint and right of centre the OutPoint

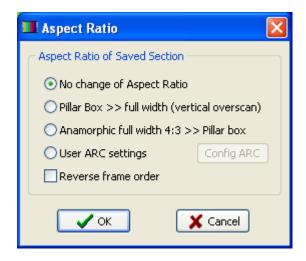
Ident Frame

The ident frames used in movie thumbnails are automatically taken from the first non-black frame. This may be unsuitable, so a new ident frame can be set by right-clicking on the lower left status panel. This displays a popup menu allowing the current frame showing in the Trim window to be used as the ident frame.



Save Section

When saving a trimmed section of a Movie the Aspect Ratio dialog will be shown.



The default selection is not to change the Aspect Ratio and so copy the section unmodified.

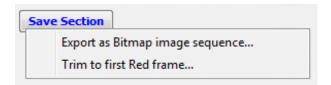
Two preset options are available to convert a 4:3 images:-

- a, Pillar box to full width overscan
- b, Anamorphic format to pillar box

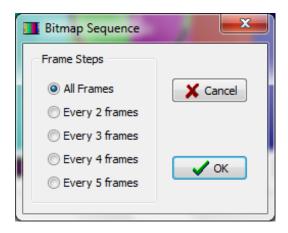
The final option allows user defined settings via ARC settings dialog.

In addition to ARC options is the 'Reverse frame order' checkbox, when selected this will render the section backwards.

The Save Section button has a right-click menu



The first option allows the clip to be exported as a sequence of bitmaps, the spacing of the saved images can be selected.

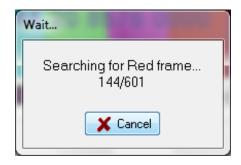


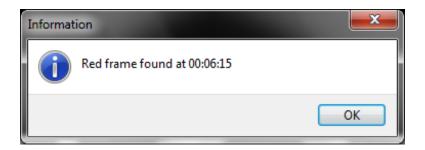
The second option relates to backing up data from Sony vision mixers/switchers.

Many Sony switchers can hold stills and short clips internally, this data can be saved to an external device such as ImageOn as a <u>backup</u>.

The data is transferred with full field colour frames acting as markers, the start marker is a red frame, the 'Trim to first red frame' option positions the InPoint at the first red frame in the recording.

The clip can then be saved as normal starting with the first red frame.





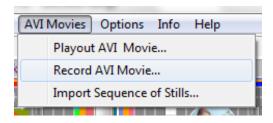
Sony Switchers - BackUp/Restore

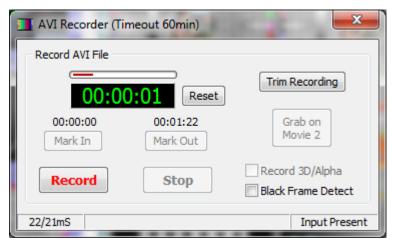
The process for backing up the Frame Memory data from the Sony switcher is:-

Sony: Route Frame Memory 1 to ImageOn input e.g. FM1 > Aux 9 > ImageOn

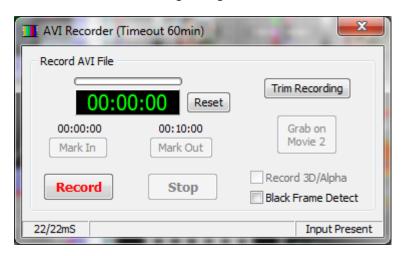


ImageOn: Select Record AVI Movie option





If recorder not set at beginning click on Reset to clear the start time.



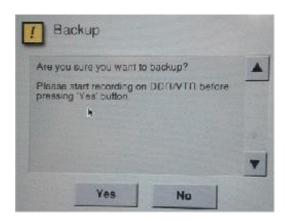
Sony: press Frame Mem hard button twice then soft buttons External Device and BackUp to DDR/VTR or select page number 2564



Highlight Clip/Still and press BackUp Start

ImageOn: press Record to start movie recording

Sony: select Yes to start the transfer

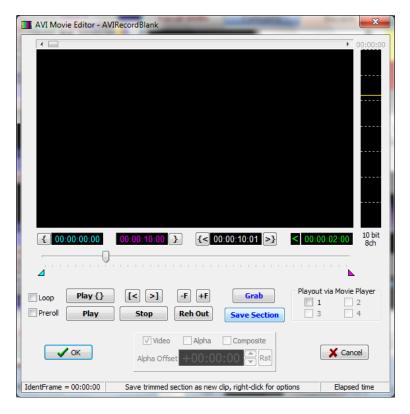


A red frame followed by the contents of the stills/clip memories will be played out to ImageOn

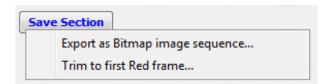
Sony: when data has been transferred a dialog box will appear click on OK



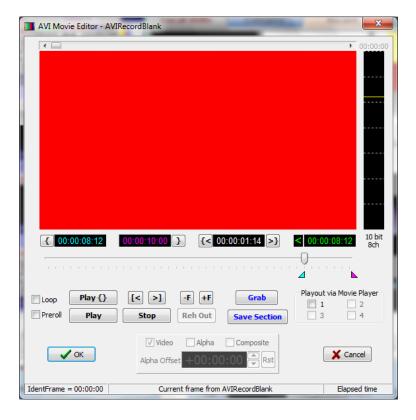
ImageOn: click on Stop to end recording, then select Trim Recording



Right-click the Save Section button and select 'Trim to first Red frame'



This will position the InPoint at the start of the transferred data, then click on Save Section and save to disc.



Sony: press 'File>File name Data'



Then select a suitable folder location and press Save



The process for restoring the Sony switcher Frame Memory data from ImageOn is:-

Sony: route ImageOn Movie player 1 output to Frame memory input



Press Frame Mem hard button twice then soft buttons External Device and restore from DDR/VTR or select page number 2565

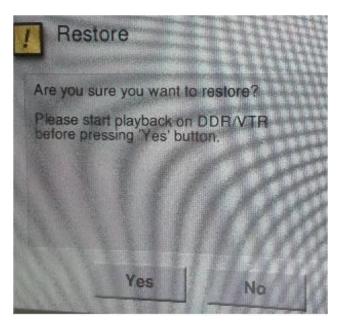


Press File > File Name Data soft button

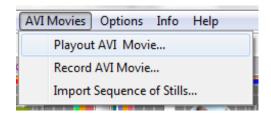
Navigate to appropriate folder and file then press Load



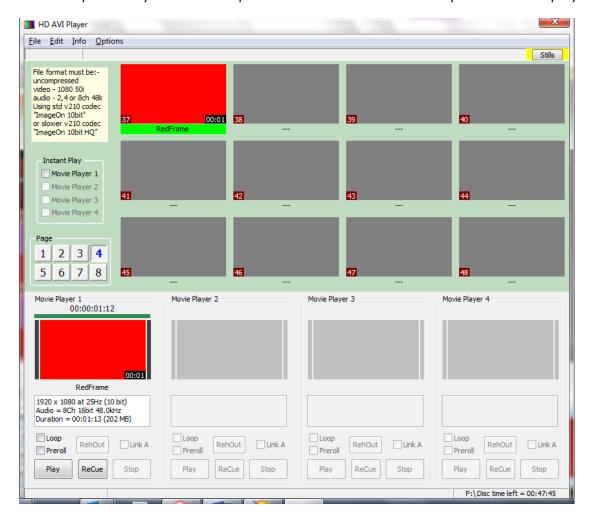
A prompt dialog will then appear



ImageOn: view the Movie Players via the Playout AVI Movies menu



Load the previously saved backup file onto a movie tile then drop it into Movie player 1



Play the movie then immediately continue with the next step

Sony: click Yes in the Restore dialog box, when restore is complete the prompt will change to indicate success or failure.



The audio level meters on the right hand side of the Trim window have a popup menu shown below

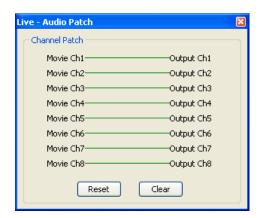


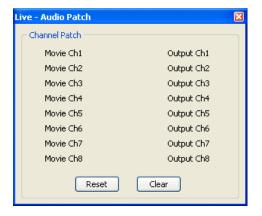
Audio Patch
Audio Gain
Audio Waveforms
Audio Hex Data
Video Waveforms
Video Vectors

Displays a channel patching control Displays a simple channel gain control Displays audio as an amplitude/time plot Displays audio as raw hexadecimal data Shows YUV/RGB vs time plot of video Shows U/V vector plot of video

Audio Patch

This setup dialog allows the movie channels 1..8 to be patched to the output channels.

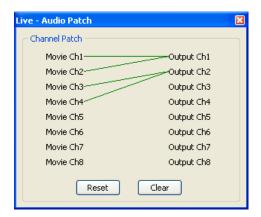




The default patch is recalled by clicking on Reset, and Clear removes all patching - note with no channels patched the default patch is used.

The patching is live and the effect can be see immediately in the audio bargraphs.

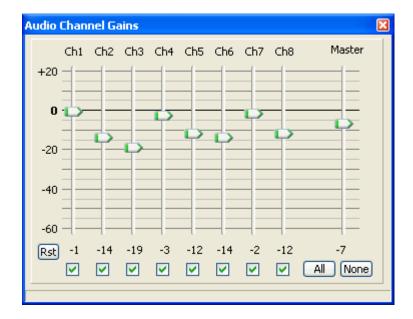
A patch to mix movie Ch1+2 to output 1 and movie Ch 3+4 to output 2 is shown below.



The patching is achieved by dragging and dropping between the Movie and Output channels.

Variable Audio Gain

The popup dialog below can be used as a quick method of adjusting the gain of the individual audio channels.



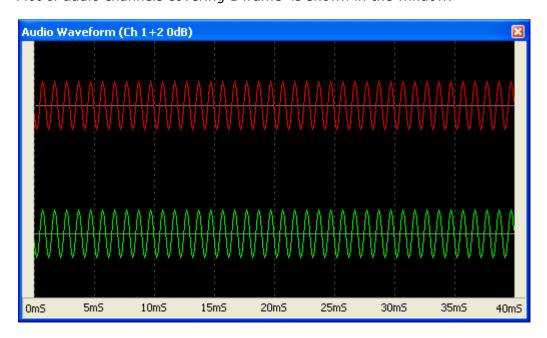
The faders 1..8 change the gain of the selected channels, the Master fader affects all selecyed channels.

Reset sets the channel and master gains back to unity (0dB).

Changes are applied immediately and the result shown in the Trim window bargraphs.

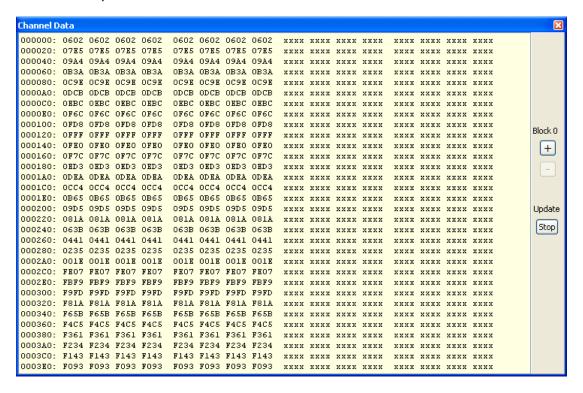
Audio Waveforms

Plot of audio channels covering 1 frame is shown in the window.



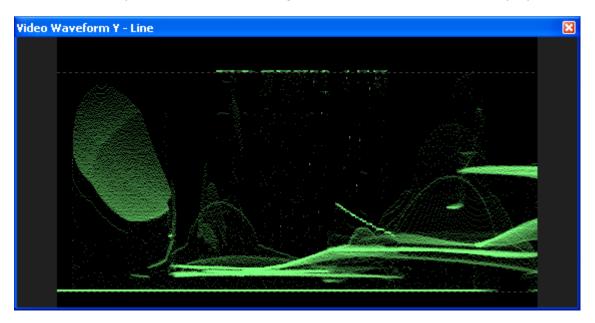
Audio Hex Data

When in Engineering Mode the raw audio data can be displayed as hexadecimal code for detailed analysis



Video Waveforms

Video waveform plot is available and a right-click menu offer different display formats.



Video Vectors

A vectorscope plot of colour difference channels U and V is shown with this option.



Keyboard Shortcuts

Arc Settings Dialog:-

Escape Select Default Preset F1..F8 Select Preset 1..8

QuickView:-

Shift+Left Move Crop selection left edge
Shift+Right Move Crop selection right edge
Shift+Up Move Crop selection top edge
Shift+Down Move Crop selection bottom edge

Ctrl+Left Move Crop selection left
Ctrl+Right Move Crop selection right
Ctrl+Up Move Crop selection up
Ctrl+Down Move Crop selection down

Escape Close window abandoning changes
Return Close window maintaining changes

AVI Player:-

Home Cue to start End Cue to end

Spacebar Play from In point to Out point

Left Nudge back 1 frame
Right Nudge forward 1 frame
Up Nudge forward 1 second
Down Nudge back 1 second

Escape Stop playback
Qwerty O Mark Out point
Qwerty I Mark In point

Movie Player:-

Space Play Movie Player 1 Home Recue Movie Player 1 Qwerty Q Recue Movie Player 1

End Rehearse Out point of Movie Player 1

Escape Stop Movie Player 1

F1..F12 Load and Play Tile 1..12 in Movie Player 1

Main Window:-

F2 If a single Still is selected in the Local, Category or

Recent lists, the Description editor will be highlighted

ready to overwrite the current text

Menus

Main Menus

<u>File</u>

<u>Edit</u>

Stacks

AVI Movies

<u>Options</u>

<u>Info</u>

Engineering

<u>Admin</u>

Help

List Menus

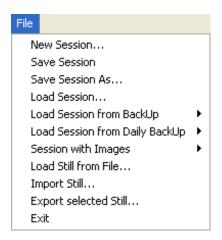
<u>Local</u>

<u>Global</u>

Stack Menus

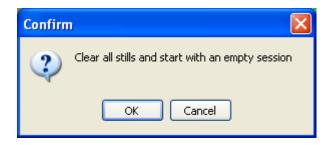
<u>Stack</u>

File Menu



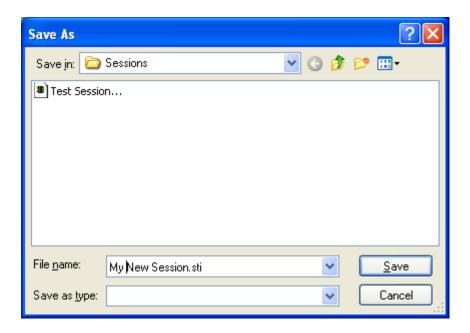
New Session Clear all stills from Stacks and Local list Save Session Save all Stacks and Local list to current disc file Save Session As Save all Stacks and Local list to new disc file **Load Session** Load all Stacks and Local list from disc file Load from BackUp Load all Stacks and Local list from backup disc file Load all Stacks and Local list from backup disc file saved daily -Load Session from only available in Engineering mode Daily BackUp Session with Images Save session data along with image files Load one or more stills from disc Load Still from File Imports Still from another ImageOn on the same network Import Still **Export selected Still** Exports selected still/s to another ImageOn on the same network Exit Close down ImageOn

New Session



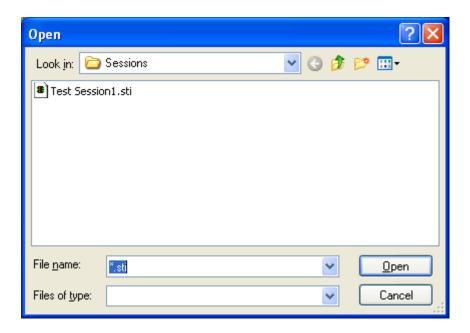
Selecting a new session is the method of clearing all stills from the Stacks and Local list, ready to load new stills. The system images will be reloaded into the Local List.

Save Session As



Save the current session to disc file, this saves the settings for still and movie playout along with the list of still numbers in each stack, it does not save the still images - as they should remain in the Local or Global lists. To specifically save the Stack settings and still images use Save Stack

Load Session



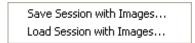
Load session from disc file

Load from BackUp

Today 11:35	Today 10:52
Today 11:30	Today 10:35
Today 11:24	Today 10:30
Today 11:19	Today 10:24
Today 11:13	Today 10:19
Today 11:08	Today 10:08
Today 11:03	Today 10:02
Today 10:57	Yesterday 13:37

Load a session from one of the automatically saved backup files

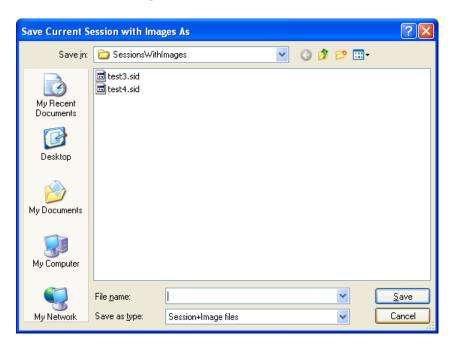
Session with Images



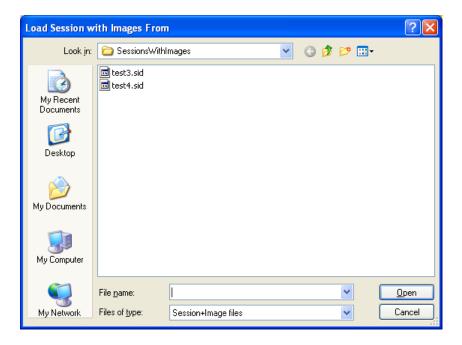
Save Session - this option allows the session data to be saved along with all the image files in the Local List.

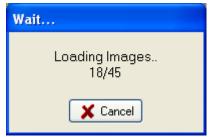


A file selection dialog sets the location of the saved file.

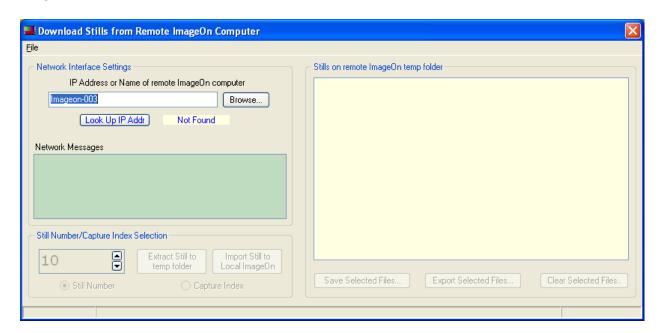


Load Session - similarly the session data and images can be loaded from disc





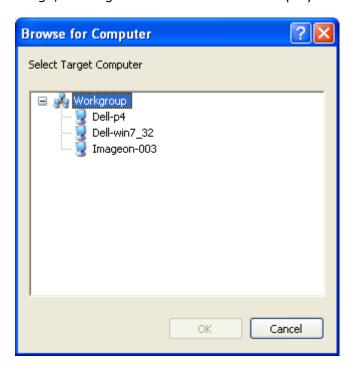
Import Still



Images can be transferred between ImageOn computers on the same network.

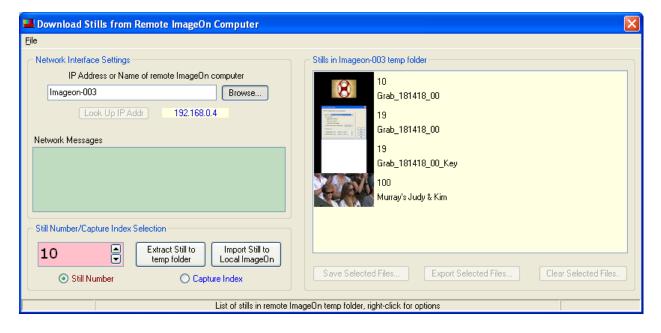
In order to load an image the Still number or Capture Index must be known, it is preferable to use the Capture Index for a reference as the Still number can be easily changed or the still deleted.

The first stage is to browse for the remote ImageOn computer that holds the required image, clicking on the Browse button displays a network browse dialog.

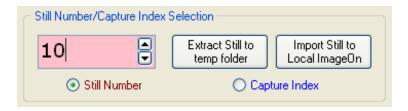


Select the appropriate remote ImageOn computer.

If there are any stills held in the temp folder on the remote ImageOn they will be displayed in the right hand panel.



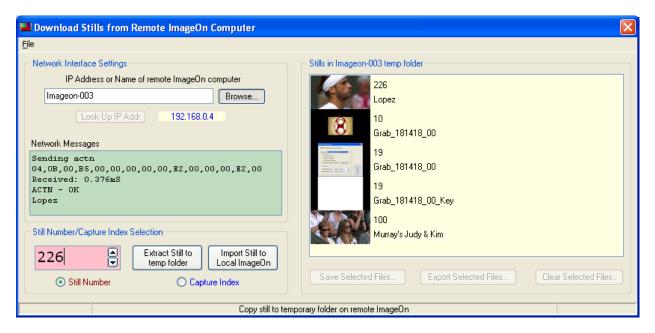
Select the Still Number option which will show a pink background to the number editor



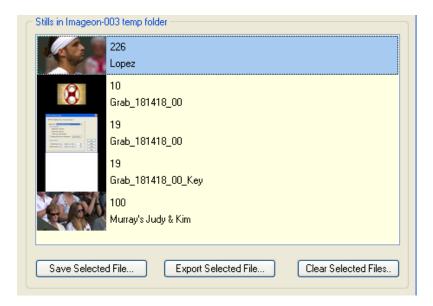
Or select the Capture Index option which will show a blue background to the number editor



Then click on 'Extract Still to temp folder', here still number 226 has been selected and is now in the temp folder of the remote ImageOn



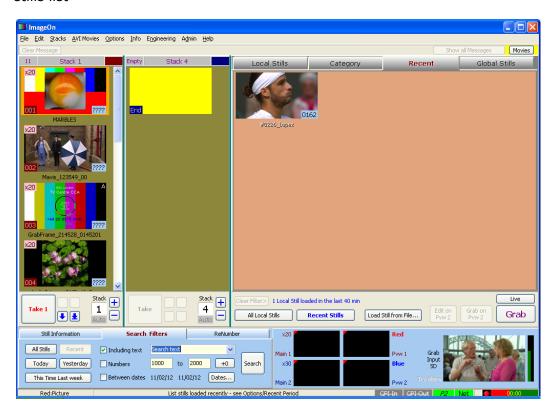
Highlighting the required still enables the buttons at the bottom of the screen



Save Selected File Export Selected File Clear Selected Files Save the file to a local disc

Export the still from the remote ImageOn onto the local ImageOn Clear the files from the remote ImageOn folder – this can be done without affecting ImageOn operation.

Selecting Export Selected File will result in the still/s appearing in the local ImageOn Recent stills list



If it was not necessary to preview the still then the still could have been loaded directly by clicking on the 'Import Still to Local ImageOn'



If the entered Still Number or Capture Index was not found on the remote ImageOn the Network Messages section will show an error

```
Network Messages

Sending actn
04,0B,00,B5,00,00,00,00,09,29,00,00,00,32,00

Received: 0.422mS

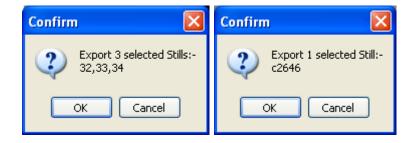
ACTN - Still Number not Found
```

Export Still

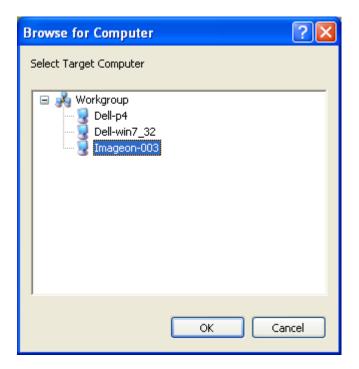
As an alternative to Importing stills from a remote ImageOn computer, stills can be Exported/sent to a remote ImageOn and will appear in the Recent list.

First select the stills to be exported in any of the Local, Category, Recent or Global lists.

Then click on the Export option, in the examples below on the left three stills with Still Numbers have been selected and on the right a single still with no still number is shown with its Capture Index.



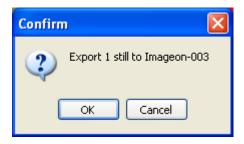
Clicking OK will open up a network browse dialog



If the computer selected is not an ImageOn computer the message below will be show.

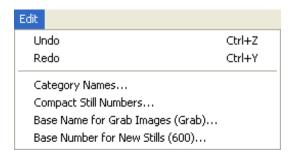


If an remote Image computer is selected then a final confirmation dialog is displayed.



Shortly after clicking on OK, the image/s will appear in the Recent list on the remote ImageOn.

Edit Menu



Undo Undo last change made to stacks
Redo Redo last change made to stacks

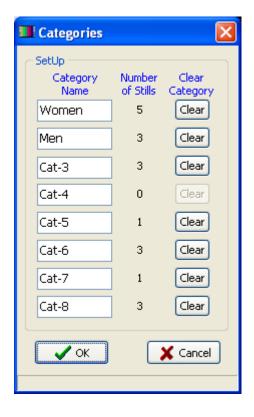
<u>Category Names</u> Edit names given to the eight still sub-categories

<u>Compact Still Numbers</u> Change Still numbers to form a continuous block of numbers

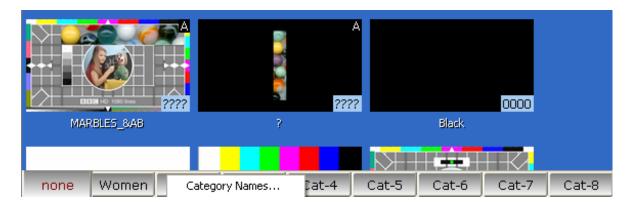
<u>Base Name for Grab Images</u> Set base name for grabbed images <u>Base Number for New Stills</u> Set base number for new stills

Category Names

To assist in organising stills there are a set of eight sub-categories to which stills can be assigned, these categories can be named and cleared using the dialog below.



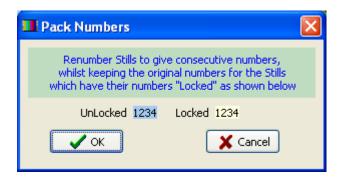
Alternatively right-clicking on the name tabs in the Category list displays the same dialog.



Compact Session Numbers

This option can be used to tidy up the still numbering removing any unused numbers, resulting in a continuous run of still numbers.

Any stills that have their numbers Locked will retain that number.



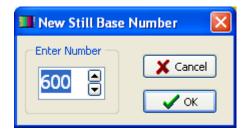
Base Name for Grab Images



Each grabbed image is stored with a description starting with the Base Filename followed by a timestamp and a counter eg 'Blue Peter_124410_00', this file was saved at 12:44:10.

Base Number for New Stills

Normally each new still loaded will be assigned the next free number, if the user wishes to separate the new stills a base number can be set so that subsequently loaded stills will be given numbers starting at 600 in the example below.



Stacks

Stacks

Stack List...

Save Stack...

Load Stack...

Export Stack Images...

Clear All Stacks...

Hide Blue Stack

Parallel Control

✓ Tint Stack Background

AutoTake...

Stack Look Ahead (none)

Stack List Display Stacks in tabular format

Save Stack Save Stack Package containing data and with image files

Load Stack Load Stack package from disc

Export Stack Images Export stills in BMP and/or TIFF format

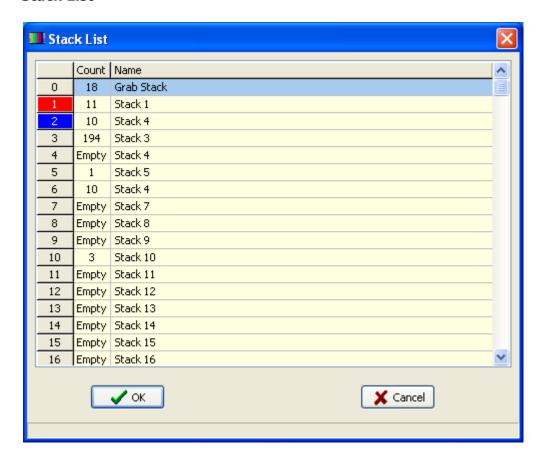
Clear All Stacks Clear all stills from all stacks

Hide Blue stack panel to allow more space for Stills list Hide Blue Stack

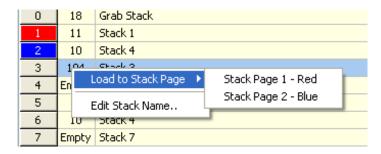
Parallel Control Link control the two Red+Blue stacks Colour stack backgrounds Red/Blue Tint Stack Background

Set stacks to automatically Take under control of a timer <u>AutoTake</u> Sets the number of stills in view ahead of the Next Still Stack Look Ahead

Stack List



Right-clicking an entry in the list will display a popup menu.

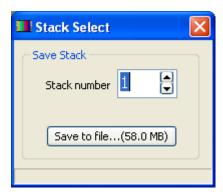


This will allow the Stack Name to be edited and the stack to be loaded into either the Red or Blue playout stack.

Save Stack Package

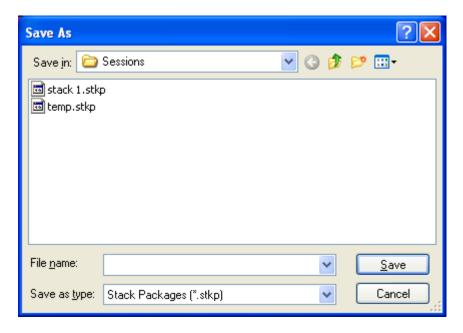
A Stack Package is a file containing details about the stack contents and the image files, this allows the Stack Package to be loaded into another ImageOn.

First the number of the stack to be saved is selected.



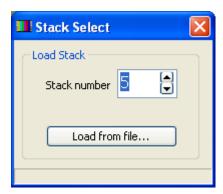
The amount of disc space required is shown in the button text.

Then a file selection dialog is opened allowing the location of the saved file to be found.

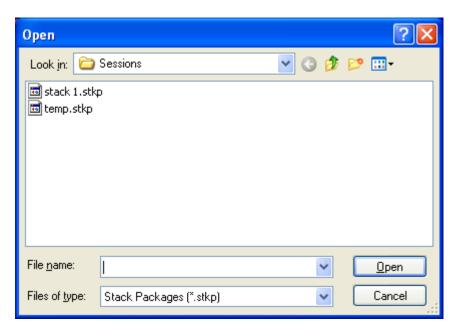


Load Stack Package

As described above a Stack Package file contains both playout stack details and the image files, to load such a file into the system first decide which stack is to be overwritten.

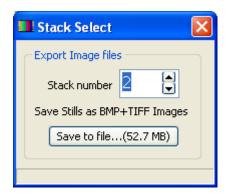


Then select the file from the file selection dialog



Export Stack Images

If the still images are required external to ImageOn they can be exported with this option, the stills are saved in both 16bit TIFF and 8bit Bitmap formats, the disc space required is shown in the button text.



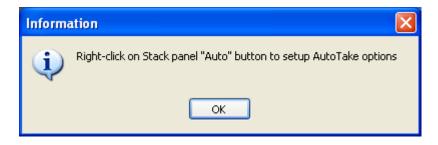
Clear All Stacks

All stills can be cleared from all stacks with this option



AutoTake

See **AutoTake** operation



Parallel Control

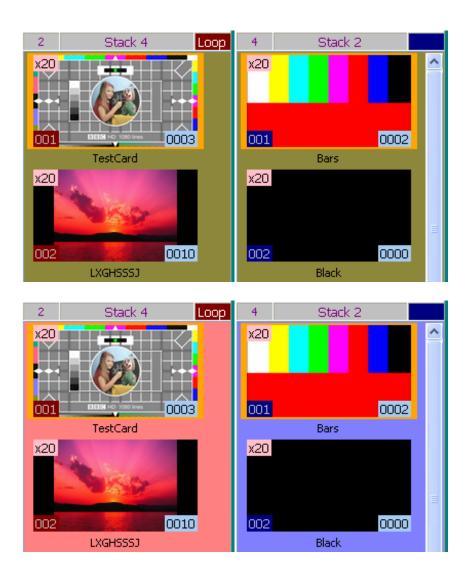


The normal colouring of the panel at the base of the two stacks is grey, when parallel control is selected the panels change to cyan, indicating that the Take and Preview actions will be copied to both stacks.

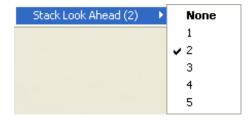


Tint stack background

The stack background colours can be changed from the default to red/blue to make the distinction between the stacks more obvious.



Stack Look Ahead



This will set the number of stills in view ahead of the 'next' still that is currently previewed.

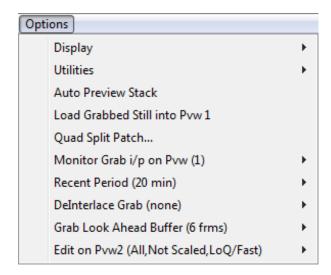
In the examples below the default value of `none' is selected on the left and 2 selected on the right.

The look ahead value can be set in the range 0..5.





Options Menu



Utilities ImageOn Utilities **Auto Preview Stack** Cut first still in Stack to Preview when new Stack loaded Load grabbed still into Pvw X Automatically cut grabbed stills to Preview output **Quad Split Patch** Assign stills outputs to quad split quadrants Unlock all Still Numbers Allow still numbers to be changed during Compacting Monitor Grab i/p on Pvw Monitor signal on grab input via nominated preview output

Display Sub-Menu

Recent Period Set length of time classed as recent when searching for stills <u>DeInterlace Grab</u> Sets DeInterlace mode for grabbed images

Grab Look Ahead Buffer Sets the delay between live input and grab input display

Options for displaying Edit screen on Pvw output

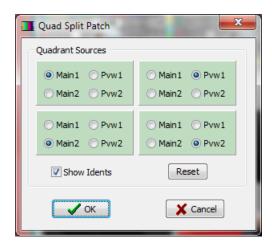
Quad Split Patch

Edit on Pvw

Display

This menu item is only enabled when an output port is assigned to the quad split output via the **Output Patching** dialog.

Quadrant sources can be selected via this dialog box, Show Idents will superimpose the quadrant sources.





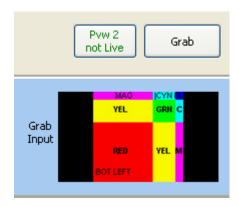
Monitor Grab input on Preview output

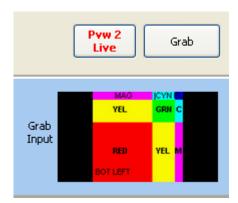
The signal on the grab input is shown at the lower right corner of the main ImageOn display, it can also be copied live onto one of the preview outputs.

The preview output to be used is selected from the menu options



The mode has to be enabled by clicking the "Pvw X not live" button above the grab image.





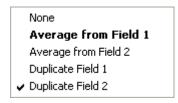
Recent Period

The time which controls the Recent list is set by this menu



DeInterlace Grabbed Stills

Stills grabbed from moving images are likely to have "Interlace Flicker" present when loaded, this is due to the two fields that comprise the grabbed frame being significantly different. This flicker can be automatically removed during the grab process, the dominant field and mode of operation are assigned via the menu items below



None Do not de-interlace image

Average from Field 1 Reconstruct Field 2 by averaging from Field 1

Average from Field 2 Reconstruct Field 1 by averaging from Field 2

Duplicate Field 1 Reconstruct Field 2 by duplicating Field 1

Duplicate Field 2 Reconstruct Field 1 by duplicating Field 2

Grab Look Ahead Buffer

The Grab input video is stored in an internal buffer and this buffer can be used to delay the images displayed in the Grab input display and via the Grab on PvwX option. The delay can be in the range 0 to 24 frames (0..960mS)

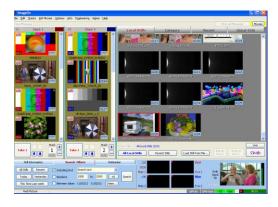


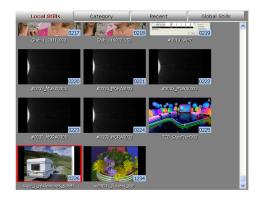
Edit on Pvw2

When displaying the ImageOn edit screen (VDU) on a preview output the image can be scaled to fit the television format by selecting the 'Scale Edit Screen to HD' option. The quality of this scaling can be set to LoQ with a fast response time or HiQ with a slower response time – mouse movements lag behind real time.



The section of the ImageOn screen to be displayed is selected to be either the whole window or just the Stills library from the right hand side.





Display sub-menu

Use PopUp Hints Hide Info Panel Hide Blue Stack

- Show Movie Mimic
- Show Players Tab
- Stack Pgm/Pvw Still Names
 Hide Still Numbers+Labels
- ✓ Flash Recent Stills Button
- ✓ Reverse Sort Recent List Advanced Editing MiniPic Size (100%)

Use PopUp Hints Hide Info Panel

Hide Blue Stack

Show Movie Mimic

Show Players Tab
Stack Pgm/Pvw Still Names
Hide Still Numbers and Labels
Flash Recent Stills Button

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Reverse Sort Recent List Advance Editing MiniPic Size Toggle on/off popup hints

Hide Info panel at the bottom of the screen to allow more space for Stills list

Hide Blue stack panel to allow more space for Stills list

Copy movie Play/Stop control and output mimic to Info Panel

Show additional main tab displaying movie players Show still names when viewing multi-column stacks Remove labels from the MiniPix

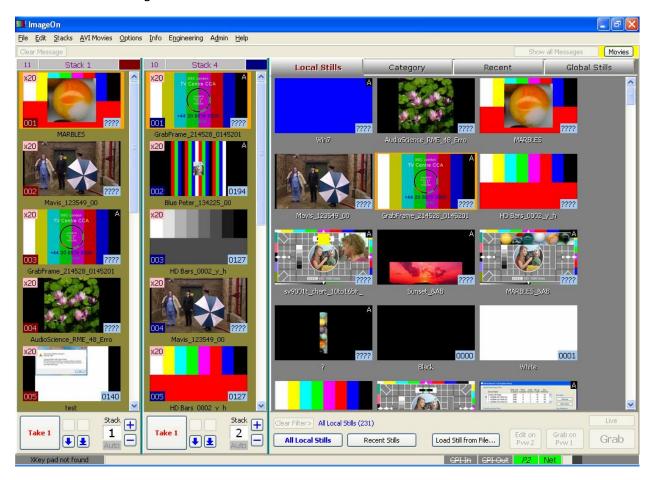
When new stills have been loaded and not viewed - flash the 'Recent Stills' button

Sort Recent list with most recent image at top left Enable access to Stacks 0 and 99 Set the size of the MiniPix in the stack and list

displays

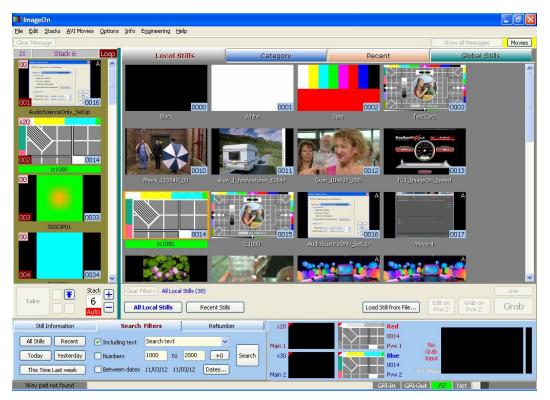
Hide Info Panel

The information panel is normally present at the bottom of the screen, if this is not required it can be hidden to give more of the screen area to the MiniPix.

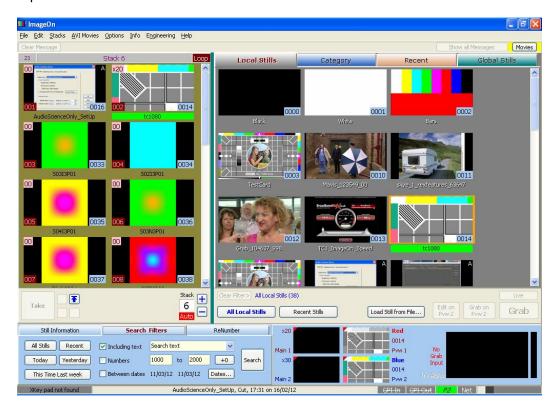


Hide Blue Stack

If only one playout stack is being used then the Blue stack can be hidden allowing more screen space for the Stills List.



The width of the stack displays can be changed by dragging the teal coloured vertical separator bars



Show Movie Mimic

In the example below Movies 1 and 4 are loaded and Movie 1 is playing



Selecting the Show Movie Mimic option will display the Movie players in the Info panel, the Play and Stop indicators are live and will directly control the appropriate movie. Right-clicking the Stop button will ReCue the movie.



Show Players Tab

The main display normally contains 4 tabs Local, Category, Recent and Global, an extra tab 'Players' can be enabled with this option to show the movie players.



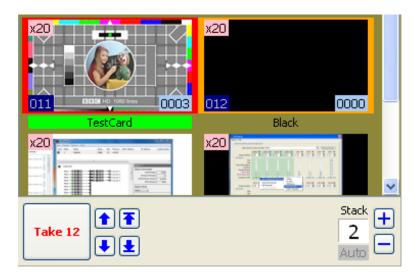
The area available for the Players screen will depend on the screen size and chosen layout, a scroll bar is used to move hidden players into view.



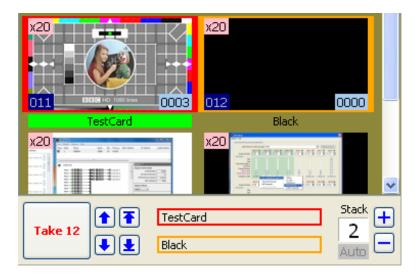
Control of the player is limited to the transport controls at the bottom of the player, loading and trimming of clips can only be performed in the popup <u>AVI Player window</u>.

Stack Pgm/Pvw Still Names

When the stacks are set to contain 2 or more columns of stills, the area in the lower centre of the stack display which is normally blank can be used to show the descriptions of the On-Air and Preview stills.

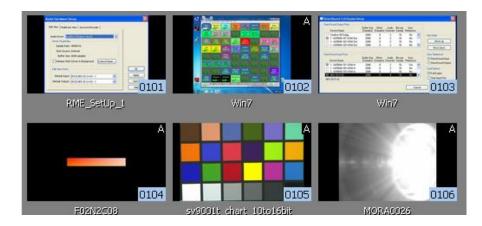


With the Stack Pgm/Pvw Still Names option selected the description of the still currently On-Air will be outlined in red and below it the description for the next still to be taken outlined in orange.

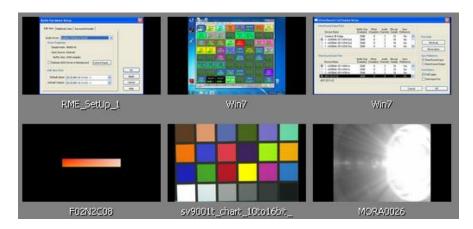


Hide Still Numbers and Labels

Still MiniPix have information shown in the corners such as still number and Alpha channel present indicators. If required this extra information can be temporarily removed with this menu option

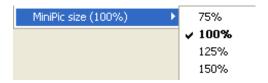


Usual display above and with labels removed below.



MiniPic Size

The size of the MiniPix are by default 160x90 pixels (100%), this can be changed to a larger size with fewer images fitting onto the VDU screen.



Changing the MiniPix size will only take effect after a restart of ImageOn

Utilities sub-menu



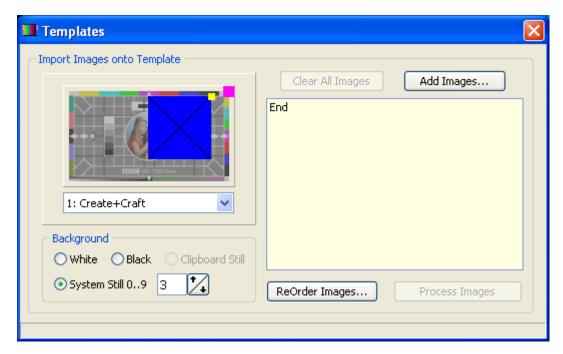
Template Import
Arc Settings
Simple Caption Generator

Import stills based on position template Adjust Aspect Ratio Convertor (DVE) settings Very basic caption generator

Template Import

The template utility can be used for automatically positioning images on a background.

The initial template dialog is shown below.



It is assumed the imported images are of a suitable size and aspect ratio for this operation.

The upper left graphic shows the position of the inserted image as a blue rectangle on the dimmed background image.

The two small coloured squares indicate the reference points for positioning the image.

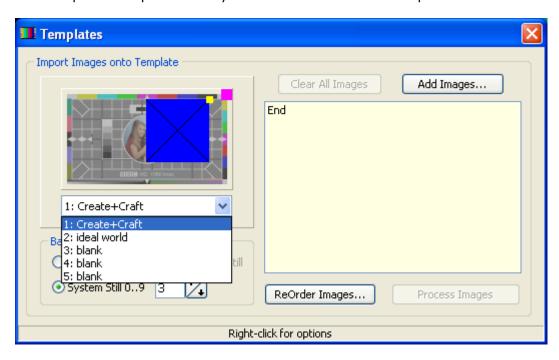
Common template presets are available from a drop down list.

The background can be a white field, black field, an ImageOn still that has been copied to the ImageOn clipboard (right-click still in Local List and select Copy Still) or any of the System stills.

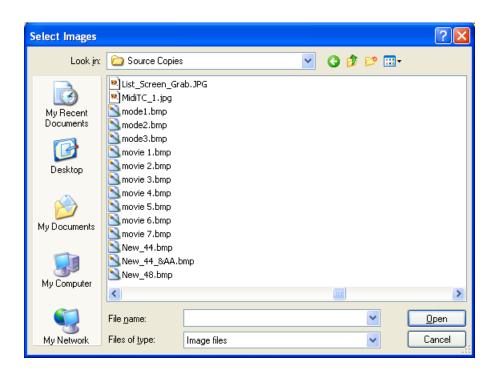
On the right hand side is a button to select the image/s to be imported, each image will be positioned on the background as required and the composite saved as a new ImageOn still.

Original are stills not modified.

If the required template already exists select it from the drop down list.

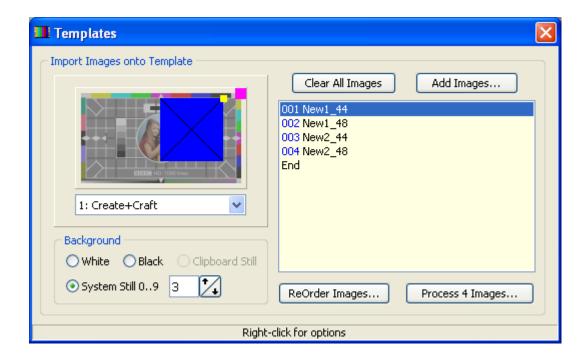


Then select image file/s by clicking on the 'Add Images....' button, this displays a Windows file selection dialog listing common image types.

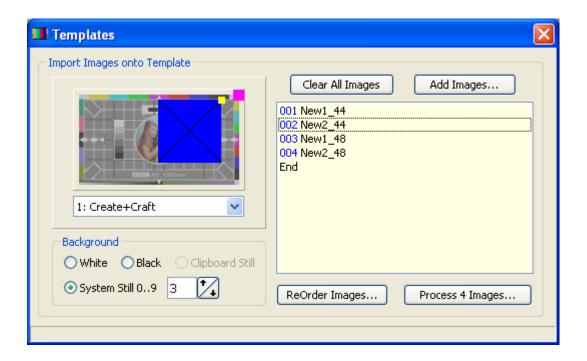


Select single or multiple files and click OK

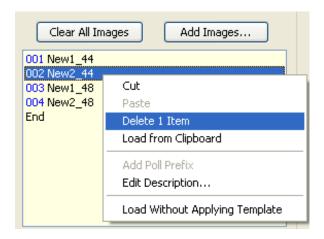
Alternatively the stills can be drag+dropped from an open folder.

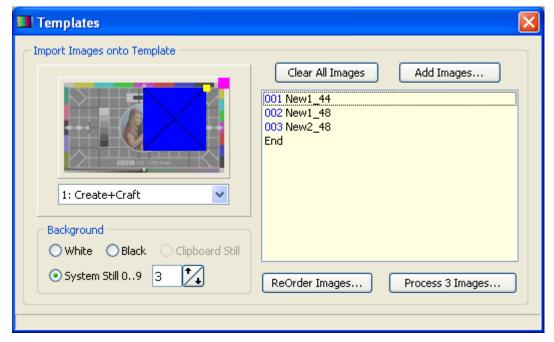


The images will initially be listed in alphanumeric order, but the order can be changed by dragging and dropping items within the list.



Individual or multiple images can be removed from the list by right-clicking and selecting Delete XX Item.



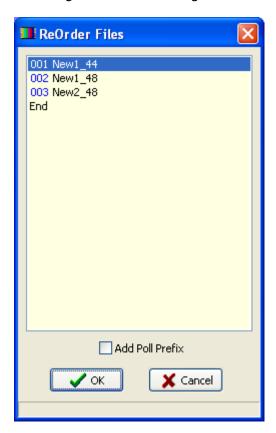


The Clear All Images button will clear the list of all images.

Selecting the Edit Description popup menu option allows the description to be changed any edited descriptions will be shown in green text.



Selecting the ReOrder Images button opens up a new resizeable window



Single stills can be drag and dropped from external folders and within the list, a popup menu allows movement of multiple stills.

Multiple stills can be selected using the normal Windows Shift+Click and Ctrl+Click methods.



The 'Add Poll Prefix' checkbox adds a numeric prefix to the Still description, this is based on an algorithm for a specific client.

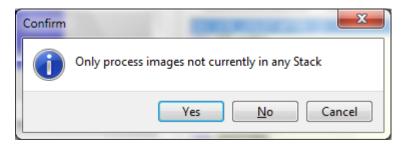
```
001 01-New1_44
002 02-New1_48
003 03-New2_48
End
```

In the main Template window click on 'Process xx Images..' to start the utility, the images will be loaded into ImageOn in the order shown with the file name and Poll Prefix used as the description text.

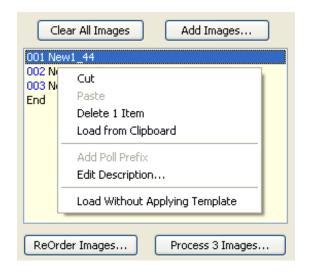
A confirmation dialog is shown prior to conversion



Next a check whether all stills should be processed or only those not already loaded into one of the stacks, used for adding stills to an existing project.



As an alternative to loading stills with a template they can be loaded without modification but in the order that they appear in the list.

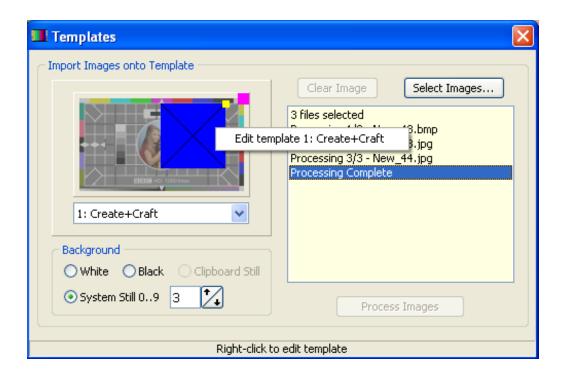




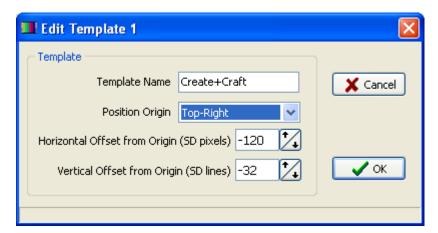
The template file list is saved with 'Session with Images' file and is recalled via 'Load from Clipboard' popup menu on template list box, the file list is saved until overwritten by the next load of a 'Session with Images' file, so will remain for second pass for when saving pink and/or blue stacks.

Templates can be edited, in the example below the purple block is origin reference point (top-right) and the top right corner of the insert (yellow block) can be offset horizontally and vertically relative to that point.

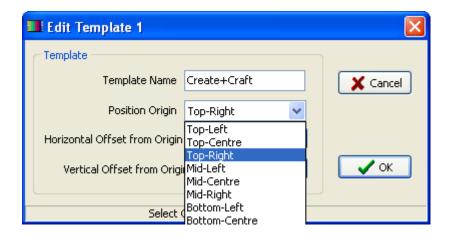
Right-click on the graphic and select Edit template.



In this dialog the name of the template can be edited along with the origin reference point and offset values.



Reference point can be set to other locations by selecting from the drop down list.



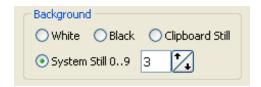
The horizontal and vertical offset values can also be set.

In this example postioning the top right corner of the inserted image relative to the top right corner of the background image.



Positive values are up and right, negative values are down and left.

The imported stills will be positioned onto a background image selected from white field, black field or an existing ImageOn still.

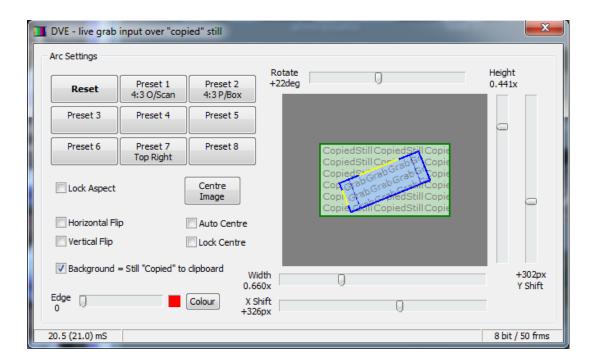


The Clipboard option will only be enabled if a still has been copied to the ImageOn clipboard (right-click still in Local List and select Copy Still).

Arc Settings

The configuration dialog for the Aspect Ratio Convertor (ARC) and simple Digital Video Effects (DVE) module is shown below.

Note: ARC facilities are limited to size and position adjustments, and DVE facilities additionally have rotation.



There are controls for:-

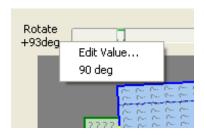
Width, Height, Horizontal & Vertical Shift, Rotation, Horizontal & Vertical Flip, Background image on/off and 6 user defined presets (3..8).

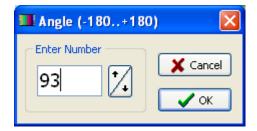
The ARC can be used in one of three areas of ImageOn:-

- 1, Copying a trimmed section of a Movie, e.g. ARC section to 4:3 pillar box
- 2a, Overlay ARC stills Main 1 output over Movie 1 appears on Movie 1 o/p
- 2b, Overlay ARC Movie 1 over stills Main 1 output appears on Movie 1 o/p
- 3, Overlay <u>DVE live Grab input</u> over still copied to ImageOn clipboard onto selected <u>Grab Pvw o/p</u>

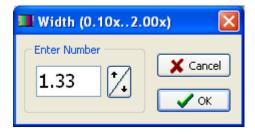
On the right of the window are the ARC/DVE controls, double-clicking on the slide bar labels will set the value to default.

Alternatively right-clicking on the labels allows the value to be entered directly, in the case of Rotation a preset value of 90 degrees is also available.





Each parameter has limits these are shown at the top of the edit window.



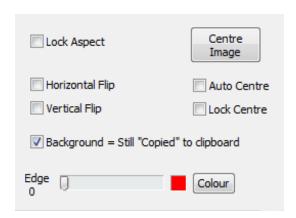
The two rectangles represent the background display area (green) and the foreground overlaid area (blue), the text within the areas indicate the video source, in the example below the background is provided by a still 'copied' to the ImageOn clipboard and the foreground the live grab video input.



The yellow bars mark the top and left sides of the foreground image, the dotted blue lines indicate the position of the 4:3 pillar box area.

The foreground area can be repositioned by dragging with the left mouse button.

On the lower left of the window are a further selection of controls.



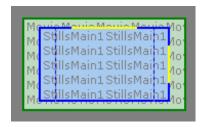
Lock Aspect – hold the current Aspect Ratio set by the Height and Width controls and only allow size changes via the Width control.

Lock Centre - hold the current centre position and disables shift controls

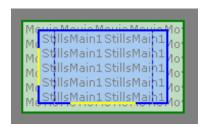
Auto Centre - continuously maintains the foreground image in the centre of the background

Centre Image – centres the foreground image

Horizontal Flip - flip the foreground image left to right



Vertical Flip – flip the foreground image top to bottom

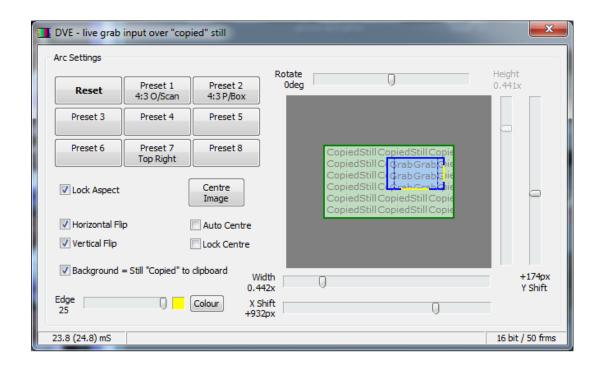


Background – when checked uses the appropriate video source, when unchecked uses black

Edge allows a coloured border to be added around the image.

In the upper left are a set of 9 preset buttons.

The top row comprising presets 0, 1, 2 are predefined, the remaining buttons can be user defined.



Right-clicking on a preset button displays a popup menu, Save Preset X will save the current settings to that preset, Preset Name alows the name to be edited finally Clear will load the preset with default values and clear the name.



Stills/Movie ARC

On Movie player 1 there are extra right-click menu options allowing the Movie and stills output Main 1 to be combined, these options are only available when playing 10bit (v210) encoded files.



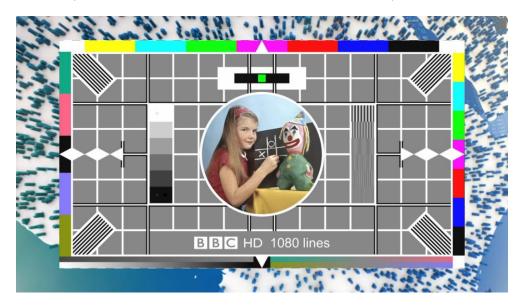
'Arc Stills over Movie' will ARC the Main 1 stills output, overlay it onto the full frame Movie 1 and route the composite to the Movie 1 output.

'Arc Movie over stills' will ARC Movie 1, overlay it onto full frame Main 1 stills and route the composite to the Movie 1 output.

When one of the two options is selected the <u>ARC Settings</u> item is enabled.



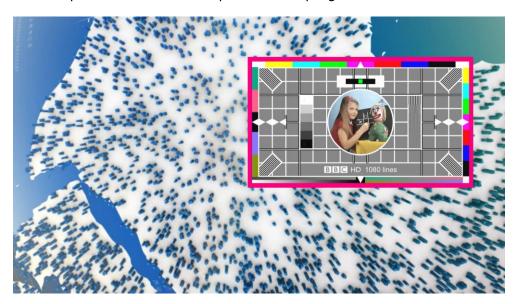
Stills output centred and zoomed back over a movie output



Stills output zoomed back and positioned top right

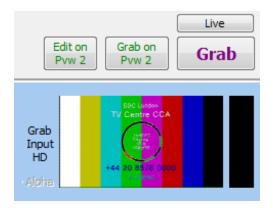


Stills output zoomed back and positioned top right with coloured border



DVE Live Grab Input

The "Grab on Pvw X" button will be enabled (green text) when there is a valid input signal and the $\underline{\text{Grab Pvw o/p}}$ is set to either Pvw1 or Pvw2.

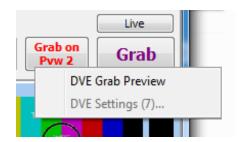


Clicking on the Grab on Pvw button will route the input signal through to the selected Pvw output, the button text will change to bold red.

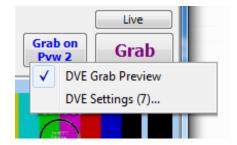
Note: this state will be cancelled if any still is grabbed or cut to the associated Pvw output.



When the Pvw video is live a right-click menu is available.

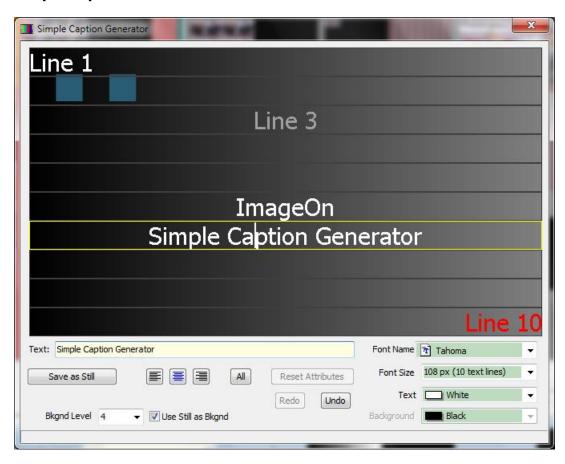


Selecting DVE Grab Preview will insert the DVE in the video path and change the button text colour to blue.



The DVE Settings option displays the DVE configuration dialog.

Simple Caption Generator

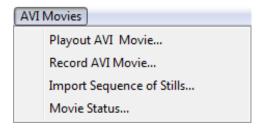


Text in any installed font can be used - font name, font size and background apply to the whole page.

The text colour and alignment applies on a per line basis.

The background can be a plain colour from the Windows palette or a still 'copied' from the Local List.

AVI Movies

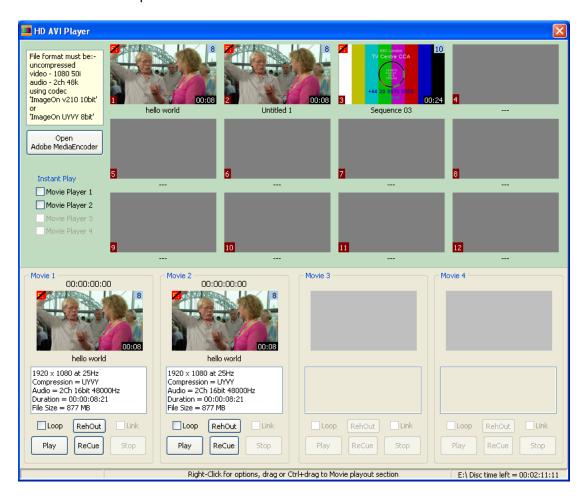


Playout AVI Movie
Record AVI Movie
Import Sequence of Stills
Movie Status

Set up movie players
Record movie from grab input
Build movie from sequence of stills
Add timecode display to Auxiliary output

Playout AVI Movie

This option allows selection of up to two HD AVI files for simultaneous playout - Movies 3 & 4 are for future expansion.



See <u>Getting Started 5</u> for further details.

Record AVI Movie

ImageOn has the ability to record short clips from the grab input.

The recorder is based on an endless loop, so the maximum length of material that can be recorded in one take is the loop length which <=15 min. However, if the material being recorded has significant sections of black and silence then the Black Frame Detect option can be selected in the dialog shown below, this will cause the recorder to skip the black and silent parts.



Clicking on the Record button will start the recording and when all material has been played in Stop will halt the recorder.

Reset recues the recorder to the start of the looped section, so avoiding recording over the 'join' in the loop.

Mark In and Mark Out buttons can be used to set approximate trim points.

If it happens that material is recorded over the 'join' then when the recording is trimmed an offset can be applied to make editing more convenient.

The Grab on Movie 2 button copies the input signal to the Movie 2 output.

When the recording is complete select Trim Recording and mark the section of interest in the <u>Trim window</u>, then use the Save Section button to extract that section and create a new movie file.



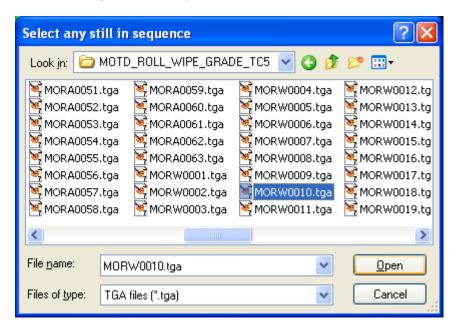
The saved section can then be loaded onto a Movie Tile ready for playout

Import Sequence of Stills

Some animations are supplied as a sequence of still frames instead of a movie clip, this menu option will construct an AVI movie file from the individual frames.

Both Video and Alpha channels can be present, sometimes with separate sequences or with Video and Alpha embedded within the same file.

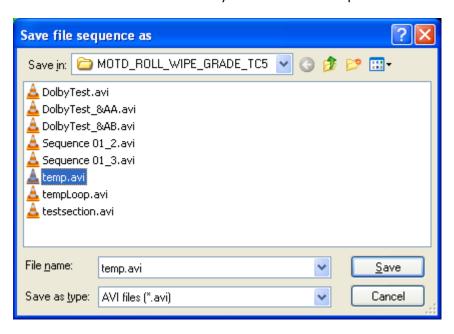
Below is an example of two separate sequences 'MORWxxxx.tga' for the Video and 'MORAxxxx.tga' for the Alpha.



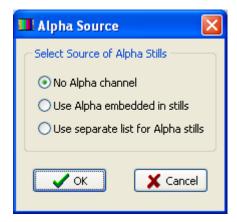
First select any file in the Video sequence, the files will be scanned and the sequence detected



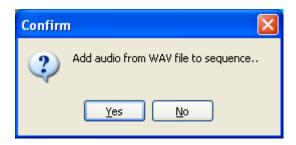
Next set the name for the newly created movie clip



Confirm whether the Alpha channel – if any – will be supplied separately or will ImageOn look for them within the Video files.



As all movie clips within ImageOn have 8 channels of audio, there is the option on adding a separate uncompressed *.WAV audio file to the sequence.

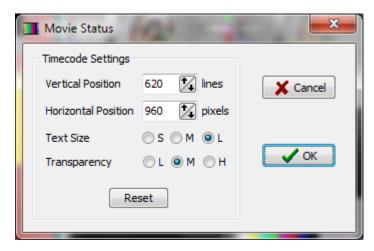


Movie Status

This menu item is only enabled when an output port is assigned to the movie status output via the <u>Output Patching</u> dialog.

The status output is mute and carries no audio signals.

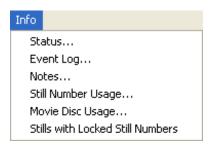
The position and size of the inserted timecode display can be set with this dialog, the values are updated live if the Movie 1 output is playing.



The text size is selectable Small/Medium/Large along with the transparency of the text background Low/Medium/High.

The Reset button with change the settings to position the display at the bottom centre of frame with medium sized text and low transparency.

Info Menu



<u>Status</u> Summary of current settings and system information

<u>Event Log</u> Log of events and actions within ImageOn

Notes Temporary notes for users

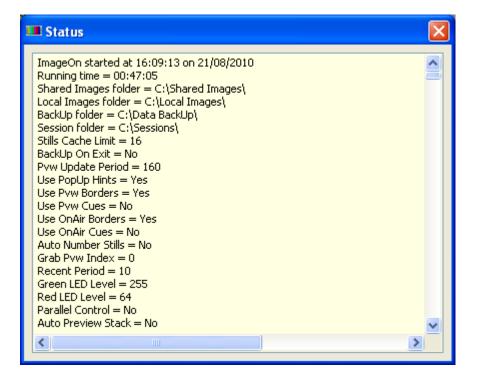
Still Number Usage Analysis on the numbers allocated to stills

Movie Disc Usage Pie chart of Movie disc contents

Stills with Locked Numbers List of stills which have their numbers locked

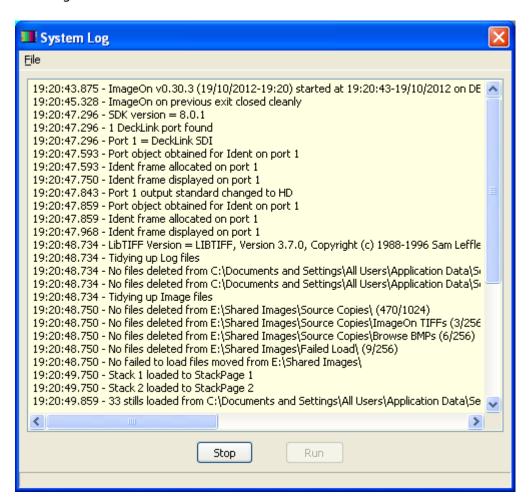
Status

List of the current state of ImageOn, used in conjunction with the Event Log for monitoring and diagnosis.

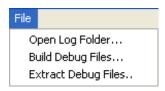


System Event Log

Log of the most recent Events, used in conjunction with the Status listing for monitoring and diagnosis.



The File menu is shown below.



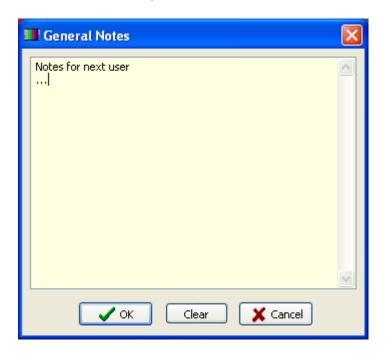
Open Log Folder Open folder containing Log files
Build Debug Files Build compressed archive containing debug files
Extract Debug Files Extract debug files from compressed archive

The default location for log file archive is E:\Shared Images\Temp\DebugLogs.Zlib.

The Stop and Run buttons at the bottom of the window will pause and restart live event logging.

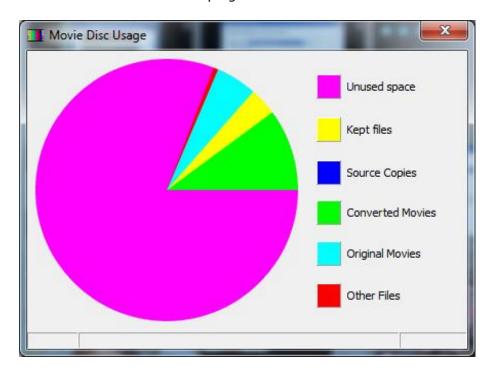
Notes

Notes for other ImageOn users



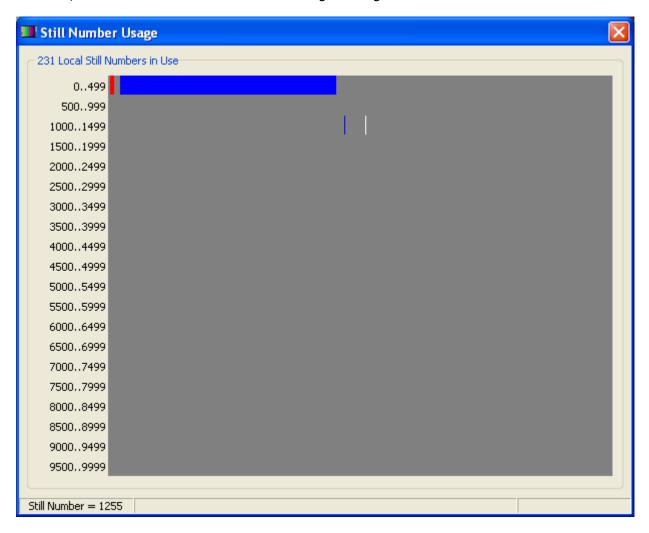
Movie Disc Usage

Details used when housekeeping Movie disc.



Still Number Usage

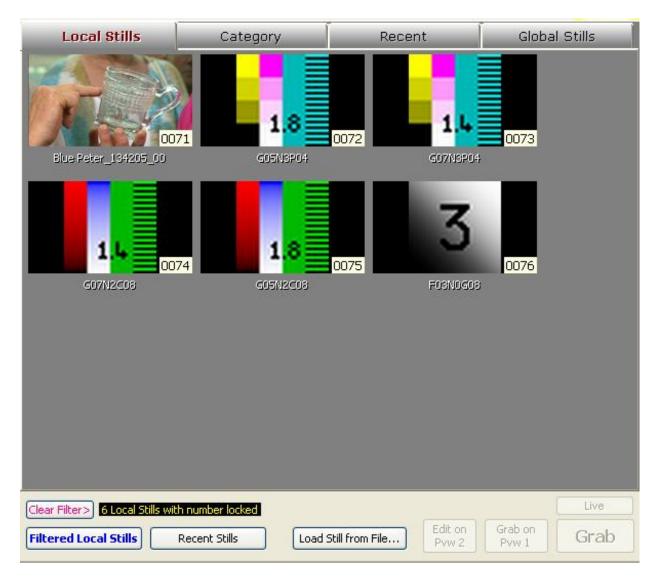
Analysis of the still numbers in use, Red indicates system stills 0..9 and Blue user stills 10.9999, this shows whether the number range is fragmented.



Stills with Locked Numbers

By default numbers allocated to stills are not locked and will be shown with a light blue background, locked number have a pale yellow background.

When using the option to <u>Compact Still Numbers</u>, stills are renumbered to build a continuous sequence. If it is necessary to keep a still with a specific number than it can be Locked and will not change when the numbering is Compacted.



Engineering Menu

Engineering Admin... Input/Output Patch... GPI/O Control... Enable GPI Loopback Card Information... Open Config Folder... ReScan for XKey Pads (0) Still Numbers to Files List... Filenames to Stills List... Options Grab Aspect Ratio (16:9) Preview Update (40mS) XKey Debounce time (100mS) XKey LED Levels (R1,B4) Comport for P2 Control (7) Record Timeout (none) ١ Manuals

Admin
Input/Output Patch
GPI/O Control
Enable GPI Loopback
Card Information
Open Config Folder
ReScan for Xkey Pads
Still Numbers to Files Lis
Filename to Stills List
Options

Preview Update Rate
XKey Debounce Time
XKey LED Levels
Comport for P2 Control
Record Timeout

Grab Aspect Ratio

Manuals

Accesses the Admin menu via a password prompt

Set the patching of ImageOn I/O to physical card ports

Set up triggers for GPI in and Out **GPI interface required

Allows GPI In operations to be triggered directly from a GPI Out

Lists information about the video cards

Opens the folder containing ImageOn system files

Force a rescan to identify connected Xkey pads

Still Numbers to Files List Displays a cross-reference list of still numbers to system file names Filename to Stills List Displays a cross-reference list of system file names to still numbers Options Further options

Defaults to input images having an aspect ratio of 16:9, 4:3 can be selected for archive material

Sets the update rate of the on screen grab input display Sets the debounce hold off for external key pads

Sets levels of red and blue LED backlights on external key pads
Defines a serial RS422 COM port for interface to a VTR controller
Maximum length of looped recording 15m, 60m or no limit

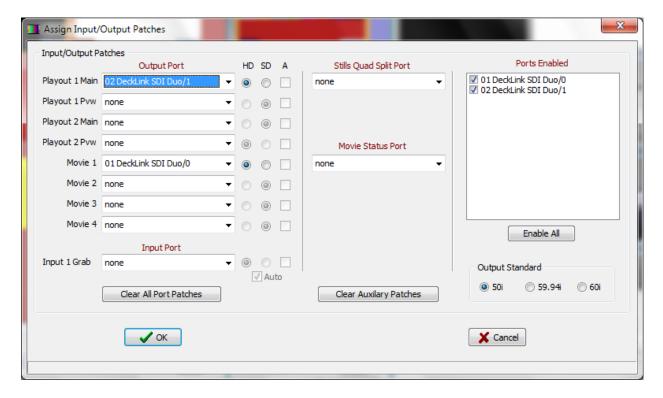
Manuals for accessories supplied with ImageOn

Admin

Enter password to access Admin menu options



Input/Output Patch



The patching of the output video to physical cards is assigned in this dialog.

On the left are a set of drop down selection boxes for each output and the grab input, a card can only be used once as an input or output.

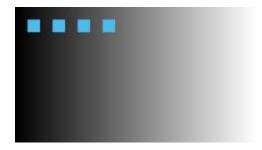
The columns labeled HD and SD set the down convertors on the output cards.

The A (Alpha) checkbox sets the input or output to handle Video and Alpha or 3D (Left+Right) signals on the two BNC connectors.

The Quad Split and Status port column allows a Quad Split of the 4 stills outputs and a Movie 1 status output to be routed to spare output ports, see <u>QuadSplit</u> and <u>Movie Status</u> menu items.

The Cards Enabled section on the right is used to isolate one or more cards for use by other external applications e.g. Adobe Premiere Pro, when checked the card will be used by ImageOn.

Clicking OK will implement the patch and draw identification images on the selected outputs.



These images comprise a linear luminance sawtooth waveform with a number of pale blue squares which indicate the output port number.

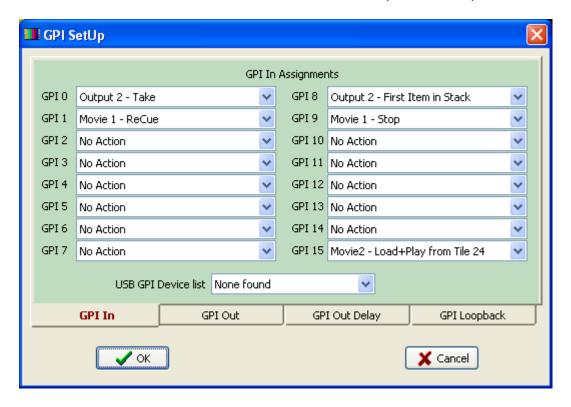
See <u>Installation</u> page for connection information.

GPI/O Control

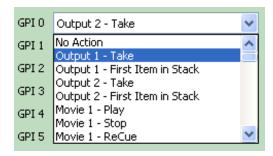
With a suitable USB GPI interface (Advantech USB-4750-AE 32-Channel Isolated Digital I/O), ImageOn functions can be controlled by external GPIs and similarly generate GPIs control external equipment.

The GPI setup dialog is split into four pages, Input, Output, Delay and Loopback.

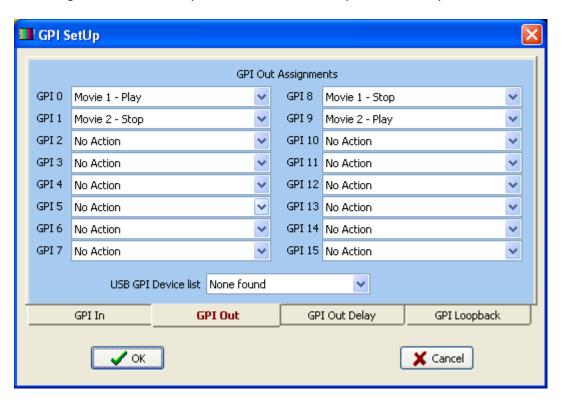
The recommended GPI interface listed above has 16 inputs and outputs numbered 0..15.

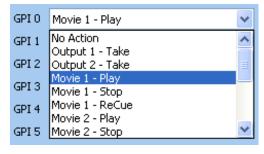


Each Input can be assigned to one of many ImageOn functions selected from a drop down list

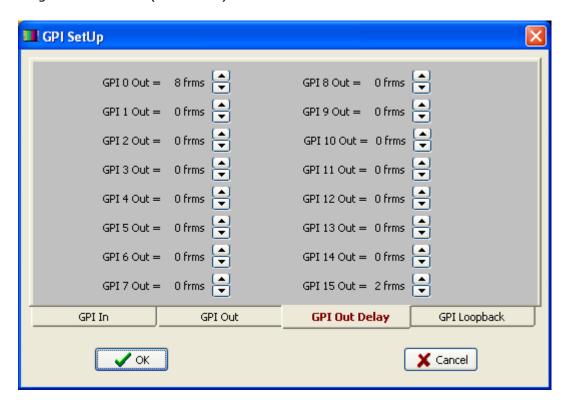


The assignment of GPI outputs is similar to the inputs via a drop down list.





In order to time external GPI triggered events it is often necessary to delay/advance some GPI signals, in the dialog shown below the ImageOn GPI out signals can be delayed in the range 0..10 frames (0..400mS).



To add extra functionality it is possible to internally loopback GPI output signals to GPI inputs.

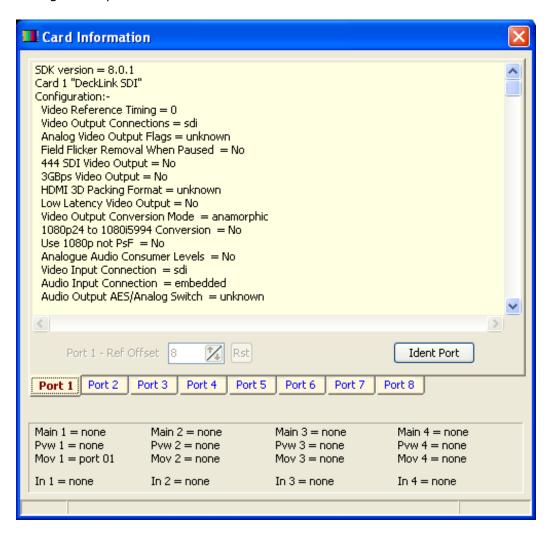
So in the example shown at the top of the dialog below, pressing the Take button on the Red (1) stack will play Movie output 1.

Not all combinations are allowed, those not permitted are shown in red text.



Card Information

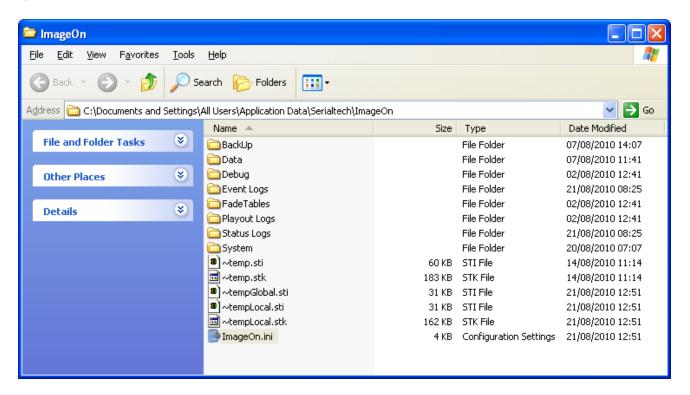
Listing of the parameters of the installed video cards



The appropriate card tabs will highlight in green when a valid Black+Burst or TLS genlock reference is connected.

Open Config Folder

The configuration files are in a reserved location and can be quickly assessed via this menu option.



Preview Update Rate

The on-screen copy of the input grab signal is updated periodically the update interval can be set between 40mS (real time) and 640mS



XKey Debounce Time

To reduce double key presses being detected on the external XKey keypads a hold off time can be set to mask out key bounce



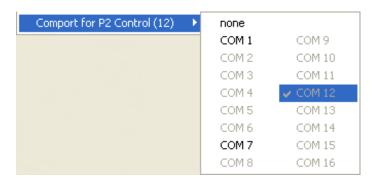
XKey LED Levels

The levels of the red and blue backlights on the external XKey keypad buttons can be set with this option



Comport for P2 Control

ImageOn can be controlled from a VTR controller supporting the Sony P2 RS422 protocol, this menu sets the serial COM port to monitor for commands.



Cueing to timecodes is the method of loading clips from the movie tiles 1..19 into the movie players, the timecode hours value defines the movie tile from which the clip will be loaded.

Cueing to 01:00:00:00 will load from Movie tile 1 into movie player 1 and cue up

Cueing to 12:00:00:00 will load from Movie tile 12 into movie player 1 and cue up

Once loaded the clip will only respond to Play and Stop and CueUp commands.

Another aspect of the cue to timecode command is that the timecode values 00:00:00:xx to 00:59:59:xx correspond to still numbers, so cueing to 00:12:34:xx will cut up still 1234 on still output 1 for output 2 use the timecode range 20:00:00:xx to 20:59:59:xx.

The P2 control is designed to work with a Moxa 1250 Uport USB RS422 interface, this unit has two RS422 ports only one is used in this version.

The pinout of the Moxa interface is not directly compatible with the Broadcast standard so an adaptor is provided, wired as below:-

Moxa D9S			VTR D9S	
Function	Pin		Pin	Function
TxA-	1	>>	2	RxA-
TxB+	2	>>	7	RxB+
RxB+	3	<<	3	TxB+
RxA-	4	<<	8	TxA-
Gnd	5	<<>>	5	Gnd

Options submenu

- ✓ Use On Air Borders
- ✓ Use Preview Borders
- AutoNumber Stills
- ✓ Live Movie Mimic BackUp on Exit
- Quad Sync Play
- Use Compressed Stills

<u>Use OnAir Borders</u> Show stills with OnAir border

<u>Use Preview Borders</u> Show stills with preview borders

Auto Number Stills Automatically number grabbed stills with next free number

<u>Live Movie Mimic</u> Displays a live image in the Movie

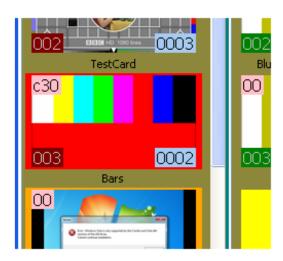
BackUp on Exit Do not use

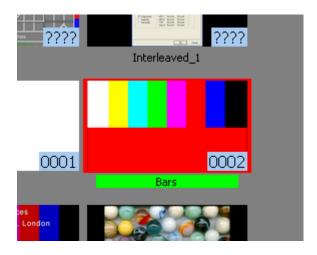
Quad Sync Play Load and sync play from movie tiles 1..4

Use Compressed Stills Compress stills when saved via <u>Save Session with Images</u>

Use OnAir Borders

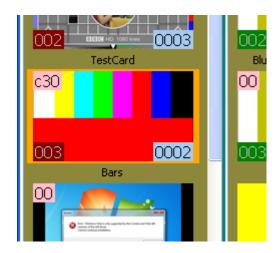
Coloured borders can be applied to highlight the still currently OnAir

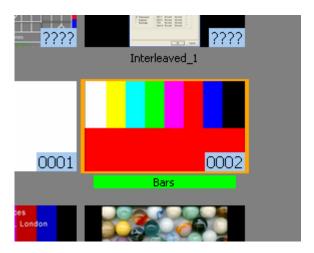




Use Preview Borders

As with the OnAir borders stills being previewed can also be highlighted with a coloured border

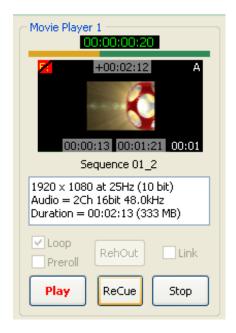




Live Movie Mimic

The image displayed in the Movie Player is by default the Ident image found when the clip was loaded (the Ident image will be the first non-black frame).

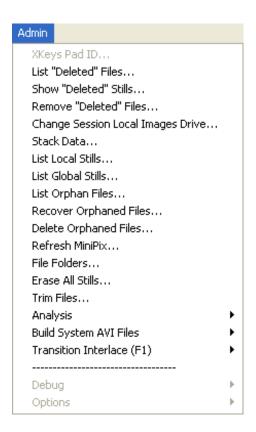
If the Live Movie Mimic option is selected then the image displayed will track the Movie output.



Quad Sync Play

To assist in loading and then playing multiple movies in sync, this option will enable sync play across all 4 movie players following a <u>Quad Play</u> trigger.

Admin Menu



XKeys Pad ID Change the Unit ID of the attached XKey key pad List "Deleted" Files List files associated with stills marked for deletion

Show "Deleted" Stills Display stills marked for deletion

Remove "Deleted" Stills Permanently remove stills marked for deletion

Change Session Scan session and change file locations to point to alternative

Local Images Drive Local Images drive

Stack Data Lists parameters for all stacks

<u>List Local Stills</u>
<u>List Global Stills</u>
List metadata for all stills in Local list
List Global Stills
List metadata for all stills in Global list

List Orphaned Stills

List stills in the Local Images folder that are not

in the Global list, usually caused by loading BackUp files

Recover Orphaned Stills Add orphaned stills to Global list

Delete Orphaned Files Permanently remove orphaned stills from disc

Refresh MiniPix ReSize all MiniPix in disc files

<u>File Folders</u> Set the default folders for system use

Erase All Stills

Permanently remove all stills from ImageOn

note this action is **not recoverable**

Trim Files Extract the first 1MB (header) of very large files for analysis

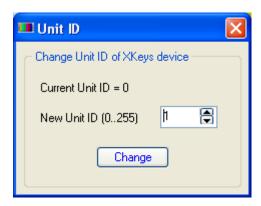
<u>Analysis</u> System analysis utilities

<u>Build System Files</u> Create blank record file and VT clock background

<u>Transition Interlace</u> Select the interlace mode for transitions between stills

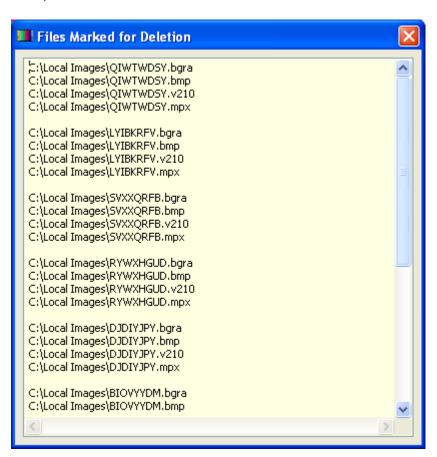
XKey Pad ID

The embedded unit ID number of the XKey key pad used with ImageOn must be set to 1



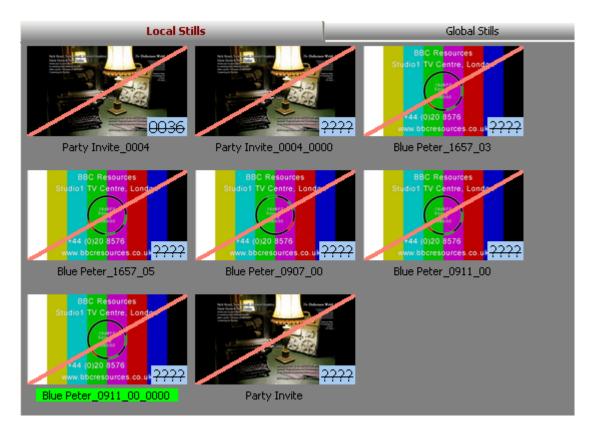
List "Deleted" Files

Simply lists the sets of files that will be removed when the "Deleted" stills are purged from the system



Show "Deleted" Stills

Displays the stills marked for deletion, at this stage they can be recovered and transferred to the Local List



Right-clicking a still marked for deletion displays a popup menu, which includes an option to UnDelete the still. The UnDelete action will transfer the still to the Local List as un-numbered.



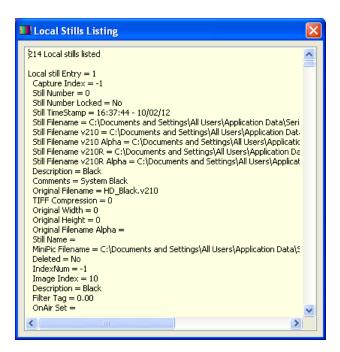
Remove "Deleted" Stills



This action permanently erases the disc files associated with the files marked for deletion - this action is not reversible.

List Local Stills

Lists all Local stills and associated metadata.



List Global Stills

Lists all Local stills and associated metadata.



Refresh MiniPix





When selecting a new MiniPic size the existing MiniPix need to be rescaled, otherwise the rescaling is done when the MiniPix are displayed slowing down the process.

File Folders



Local Folder Shared Folder BackUp Folder Session Folder Default Still Load Drive Default Movie Load Drive Default drive - usually a memory stick- for loading new stills Movie Load Folder Movie Watch Folder

Location of folder into which new images are to be loaded Folder containing backup of system user image files

Folder containing Stack session files saved by user Default drive - usually a memory stick- for loading new stills

Location of HD AVI files for movie playout

Storage of system user image files

Folder used when recoding movies to a compatible format

Transition Interlace



Analysis

Analyse Session Image File...
Analyse Movie Layout File..
Analyse Stack Package...
Analyse Memory Usage...
Analyse Stills Usage...
Analyse Session File...
Analyse Stack File...

Analyse Session Image File Decode Session with Images file to text

<u>Analyse Movie Layout file</u> Decode Movie Layout file to text

<u>Analyse Stack Package</u> Decode Stack Package to text

<u>Analyse Memory Usage</u> Display graph of memory use vs time

Analyse Stills Usage Analyse usage of all stills and show those not used in

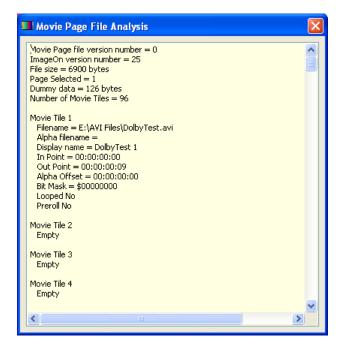
any session

Analyse Session file Decode Session file to text

Analyse Stack file Decode Stack file to text

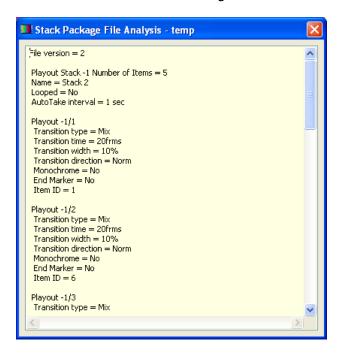
Analyse Movie Layout File

List data saved in Movie layout file



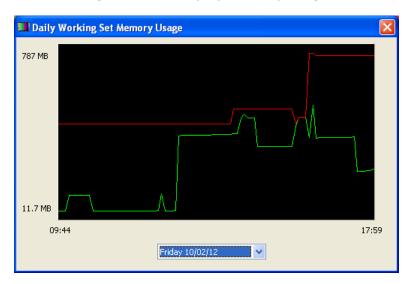
Analyse Stack Package

List data saved in Stack Package

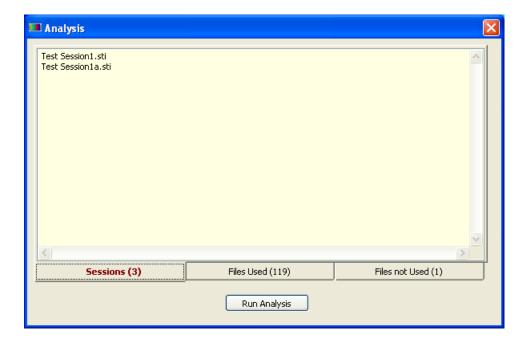


Analyse Memory Usage

Use Event log entries to display memory usage for the selected day.

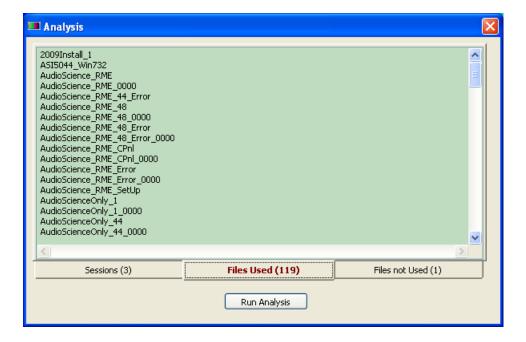


Analyse Stills Usage

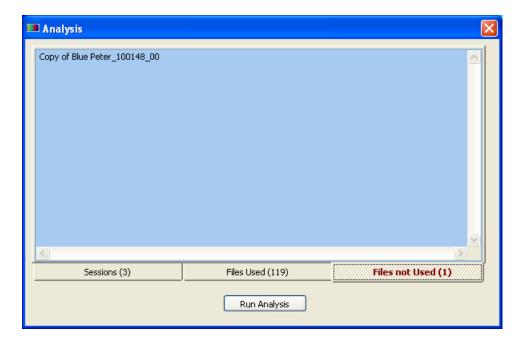


The Analysis dialog has three tabs which will initially be blank, clicking on Run Analysis will analyse all sessions found in the Sessions folder path and reference them to the Global stills list.

Above 2 sessions were found in the search, the files used by those sessions are listed in the second tab shown below



The final tab displays the files in the Global list not used in any session



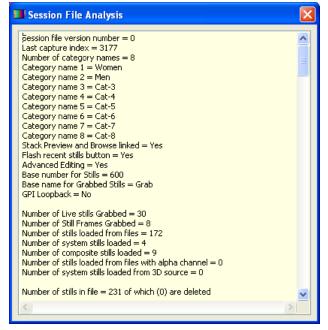
Right clicking on this display will bring up a popup menu



This will permanently remove the files from the system.

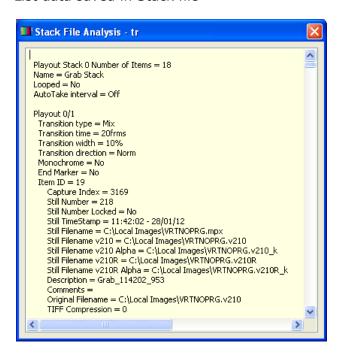
Analyse Session File

List data saved in Stack file

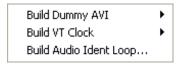


Analyse Stack File

List data saved in Stack file



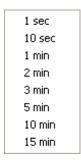
Build System Files



Build Dummy AVI
Build VT Clock
Build Audio Ident Loop

Blank AVI file for record loop Countdown VT clock background Bars and 5.1 BLITS audio loop

Build Dummy AVI



The <u>recording</u> function of ImageOn is based on an endless loop, the length of this loop determines the maximium record time and can be upto 15 minutes. Any recording made must be copied from this loop to another file for playout as the loop will be overwritten next time recording is started.

This menu option creates the formatted file ready for recording.

Build VT Clock

5 Sec 40 sec

The <u>VT Clock</u> utility allows descriptive text to be added to a countdown clock, the maximum length of the countdown is set by this option which will create the background file.

Build Audio Ident Loop

Creates a Bars+Tone ident loop, using colour bars and the BLITS 5.1 surround sound test signal.

Command Line Switches

The command line switches below can be used to set up parameters of the application.

/NoDiscSpaceChk Disable free disc space checking as it can cause

problems with remote drives

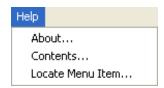
/SingleStack Only display the left hand 'Red' playout stack

/RecentRevSort Show stills in Recent list with most recent at top left

/UserEraseAll Enable File menu option to 'Erase All Stills'

The format is:-

Help Menu



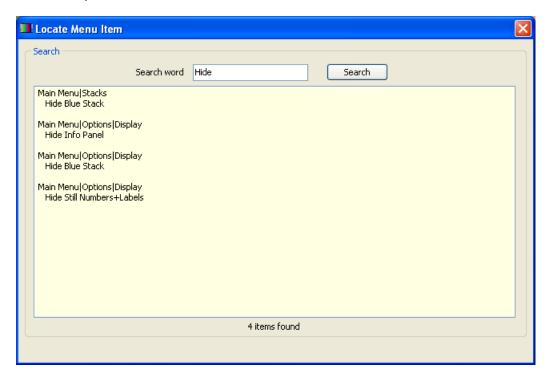
About Displays copyright and version information

Contents Displays this pdf help file

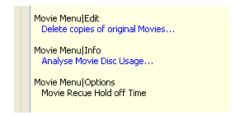
<u>Locate Menu Item</u> Display stills marked for deletion

Locate Menu Item

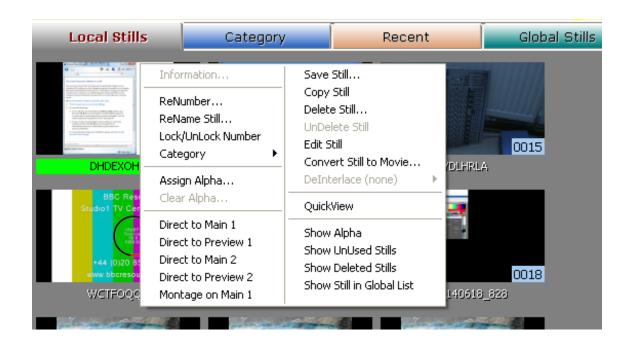
The menu structure is complex and as an aid to finding specific menu items the dialog below will perform a text search on the menu entries.



If a menu item refers to a dialog window the text will be shown in blue and clicking on that text will open up the appropriate dialog.



Local List Menu



The Local list contains all the stills used by the current session

<u>Information</u> Not impleme

Renumber Renumber selected still/s
ReName Still Rename block of stills

<u>Lock/UnLock Number</u> Lock/Unlock number to change the way it treated when still

number range is compacted

Category

Assign Alpha Assign image copied to clipboard to alpha channel of selected still

Clear Alpha Remove Alpha channel from selected still

Direct to Main 1

Direct to Preview 1

Direct to Main 2

Direct to Preview 2

Cut selected still to air on output Main 1

Cut selected still to output Preview 1

Cut selected still to air on output Main 2

Cut selected still to output Preview 2

Montage to Main 1 Use Alpha channel to key still over current image on Main 1

Save Still Save selected still/s to disc file

Copy Still Copy still/s to clipboard

Delete Still Delete still/s from Local List and all stacks

UnDelete Still Recover still marked for deletion Edit Still Edit original still with IrfanView

Convert Still to Movie Build a 5 frame movie from still frame

<u>DeInterlace</u> DeInterlace a grabbed image using an alternative method <u>QuickView</u> Show a large version of the still and provide basic editing

<u>Show Alpha</u>
Show MiniPic version of alpha channel if it present
Show UnUsed Stills
Display stills in Local list not used in any current stack

Show Deleted Stills Display stills marked for deletion

Show Still in Global List Display Global list and highlight selected still

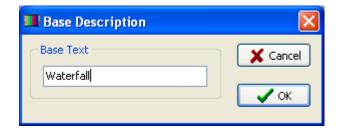
Information



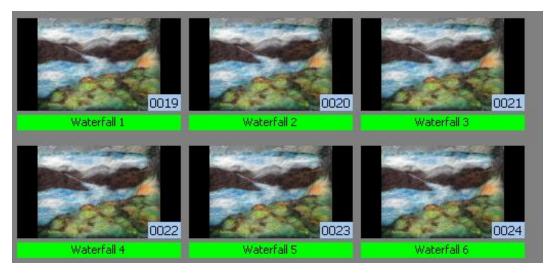
Rename Still

Stills can be renamed individually via the <u>Still Information</u> panel, if a number of stills are to be renamed this option allows them to be given a base name plus an index number.

The dialog below prompts for the base text



Resulting in the new descriptions, the length of the base text is limited to 16 characters.



Lock/UnLock Number

When <u>compacting</u> the still number range, the still numbers are changed to form a continuous block, if certain stills must retain their original number they can be 'locked' with this menu item.

Locked still numbers are shown on a pale yellow background.



Category

An example of the Category list is shown below.



The list panel is split into 9 categories, the first is named 'none' and the remaining 8 can be named by the user, right-clicking on the tab displays a dialog to edit the <u>category names</u>.

To ease navigation of the stills library, stills can be arranged into categories, in the example above categories 'Part1' and Part2' have been defined.

A still in the Local list can be assigned to 1 or more categories or not assigned to any category.

In the example below the prompt text shows the stills in 'none' are not in any category.

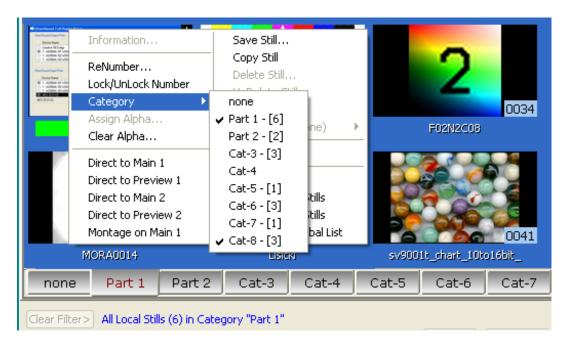


Selecting the category named 'Part 1' displays the 6 stills assigned to that category.



To move a still into a category, right-click the still and open the Category option, this will show the current category assignments, clicking on the items will toggle the still in/out of the selected category. The number in brackets [] shows the number of stills in the category.

In this example the still is in 2 categories (Part 1 and Cat-8), selecting the item 'none' will remove the still from all other categories



If a group of stills is selected then they can all be moved between categories in one operation.

Assign Alpha

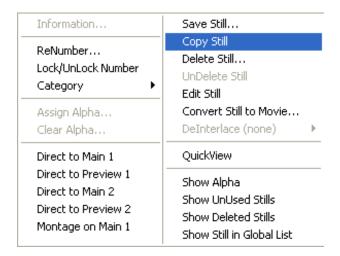
This option allows the existing alpha channel to be changed or new alpha to be added.

Still 328 below has no alpha channel (no 'A' in upper right corner), still 329 can be assigned as the alpha channel

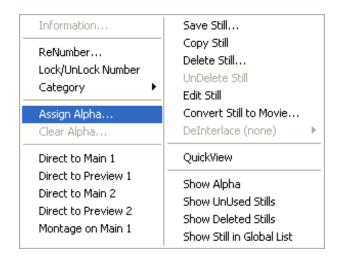




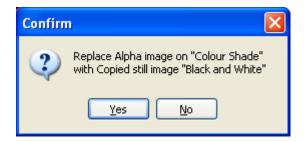
First copy still 329 to the clipboard



then right click on still 328 and select Assign Alpha



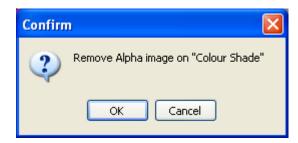
a confirmation dialog will show the assignment to be made.



An ident in the top right corner indicates that an alpha channel is now present.



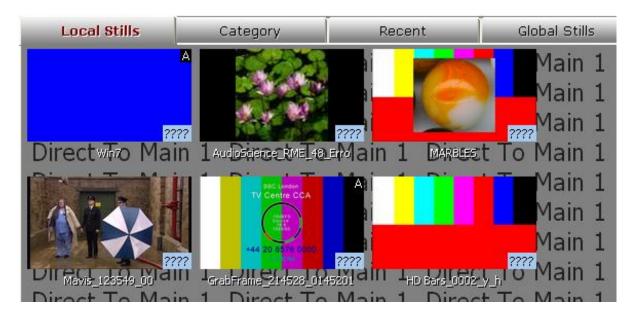
To clear the alpha channel select No from the dialog box shown above and then click OK in the next dialog, or use the Clear Alpha menu option



Finally select the Show Alpha option from the popup menu to confirm the changes.

Direct to Main 1

If a 'shotbox' style of operation is required, then selecting this option allows stills to be transitioned to the Main 1 output by simplying clicking on a still in the Local, Category or Recent lists.



The background to the lists is changed to show a warning message indicating the list is 'live'.

The stills can be routed to Main 1, Pvw 1, Main 2 or Pvw 2 depending on the option chosen.

DeInterlace

None From Field 1 From Field 2

When a still image is grabbed from a moving source the interlace effect may cause flashing on the resultant grabbed image.

Note: This effect may be masked by the display device for example an LCD, the only true test is to view using a CRT monitor

If the default DeInterlace routine is not reducing the flicker sufficiently the graabed image can be reprocessed using a different field, the image in the list will be replaced.

Save Still

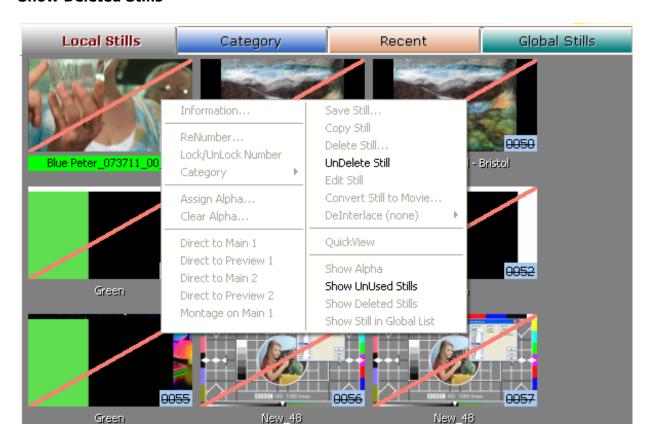


Save selected still/s as uncompressed 16bit TIFFs and 8bit bitmaps to a nominated folder

Edit Still

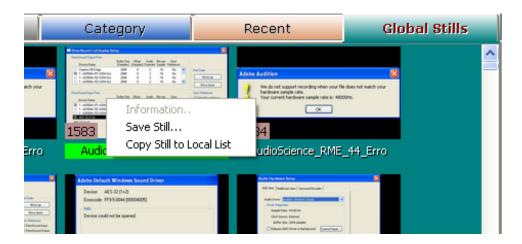
IrfanView image editor can be used to edit the still, the resultant edited still must be manually reloaded or resaved to the Shared Images folder

Show Deleted Stills



Any stills that have been deleted or more correctly marked for deletion, can be displayed and recovered

Global List Menu



The Global List contains all the stills stored within ImageOn irrespective of users, the options are limited to saving the selected still/s to disc file as an uncompressed TIF image or copying to the Local list for immediate use.

Stack Menu

Stack 5	Transition Monochrome
Edit Stack Name	
Cut Stack Copy Stack Paste Stack Clear Stack Loop Stack	Cut Still Copy Still Insert 1 Still Replace Still Select All Show Alpha
Save Still to disc Convert Still to Movie	Show in Local List

Stack X Stack number

Edit Stack Name Change the Stack name

Cut Stack Copy all stack items to clipboard and then delete them from

the stack

Copy Stack Copy all stack items to clipboard

Paste Stack Clear stack and paste items from clipboard

Clear Stack Clear all items from stack

Loop Stack Set stack to loop from last item back to first item

Save Still to Disc Save selected still/s to disc

Convert Still to Movie Build a 5 frame movie from still frame

<u>Transition</u> Selects transition to be used when taking the selected still/s

to air

Monochrome Sets still to be luminance only

Cut Item Copy selected item/s to clipboard and then delete them from

the stack

Copy Item Copy selected item/s to clipboard

Insert Item Inserts items/s from clipboard above the selected item

Replace Item Replaces the selected item with the item on the clipboard,

without changing the transition parameters of the selected

item

Select All Select all items in the stack

Show Alpha When the 3D mode is enabled each still can have an

associated Alpha/key still. Selecting this option temporarily switches the display to show Alpha stills instead of the Video

stills

Show in Local List
Identifies selected item in Local list

Stack Name

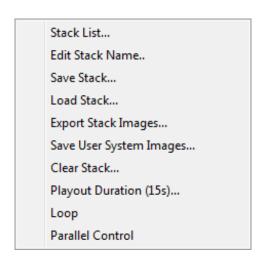


The name that appears at the top of the stack can be changed from the default 'Stack X' with this dialog



Right-clicking on the stack name will also open up a popup menu.

Stack Title Menu



Stack List Display Stacks in tabular format

Edit Stack Name Change the Stack name

Save Stack Save Stack Package containing data and with image files

Load Stack Load Stack Package from disc

Export Stack Images Export stills in BMP and/or TIFF format

Save User Images Add user defined System stills

Clear Stack Clear all stills from stack

Playout Duration Set time to AutoTake playout all stills in stack Set stack to loop from last item back to first item Loop

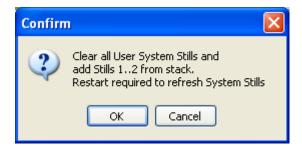
Link control the two Red+Blue stacks Parallel Control

Save User Images

This menu item is disabled by default, but will be enabled when in Engineering Mode.

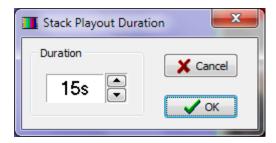
The Save User Images option allows more System stills to be added, there are four permanent system stills – black, white, colour bars and testcard numbered 0..3, up to six additional stills can be added taking numbers 4..9.

To defined the additional stills select an empty stack and add the stills required, right-click the stack title bar and select Save User Images.

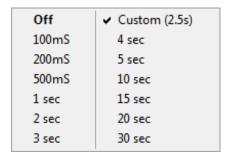


To remove the User System stills right-click the stack title bar of an empty stack and select Save User Images.

Playout Duration

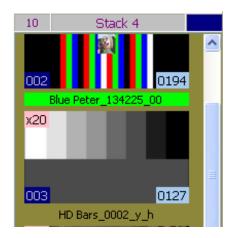


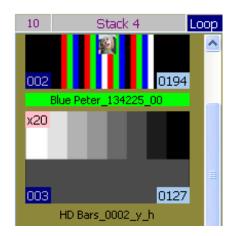
Duration for stack playout can be set in the range 15s to 10min, this calculates the Custom AutoTake time, so for 10 stills and a playout duration of 25sec the AutoTake time becomes 2.5s as shown below.



Loop

A Stack can be looped by setting the option in the popup menu or clicking on the Red or Blue coloured ident panel at the top right of the stack display





When the stack is in loop mode the ident panel will show the text LOOP.

Save Still to Disc

The still or stills selected in the stack can be saved to disc, the stills are saved in both TIFF and Bitmap formats. The reason for this is that the TIFF files are 16bit and retain the full image detail, the bitmaps however are only 8bit and so lose some detail.



Once the destination folder has been selected the files will be copied into the folder path shown below using 'Temp' as the destination folder.



Two files will be copied for each of the selected stills



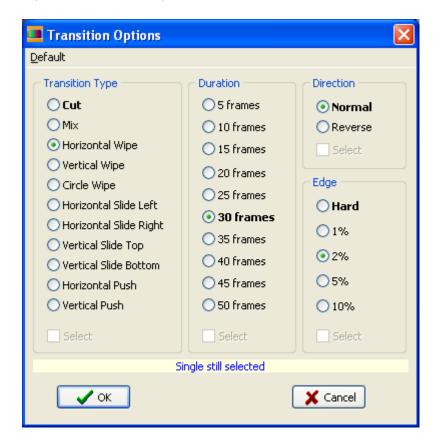
Transition

When a still it 'taken' to air the still currently on-air is replaced by the still on the preview output.

The transition between these two stills can be a simple cut, mix or wipe.

The menus below offer a selection of parameters defining the transition - type, duration, softness and direction.

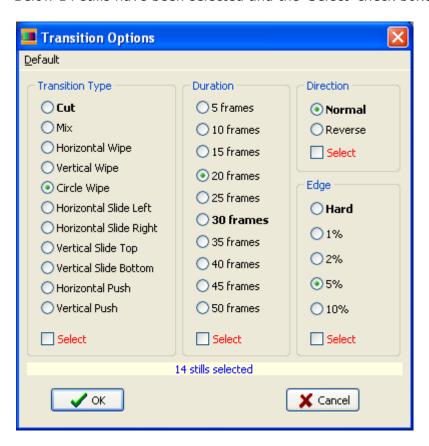
The main types of transition are Cut and Mix along with Vertical, Horizontal and Circle wipes, a selection of push and slide transitions is also available.



The dialog above shows the options when a single still is selected in the stack.

To select all stills in the stack use the <u>Select All</u> option in the Stack menu.

Below 14 stills have been selected and the 'Select' check boxes have been enabled.



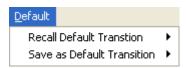
The reason for selecting multiple stills would be to either set them all to have the same transition or modify a one or more parameters of all transitions.

If the OK button in the dialog above was clicked the warning message below would appear indicating that no options had been 'selected'



If all selected stills are to now have the same Duration check the Select box in the Duration section, this will not change the other transition parameters so whatever the individual still transitions were they will be maintained but with a 5 frame duration.

The menu item on the Transition dialog allows a default transition to be set, this default transition will be assigned to all new stills added to the stack.



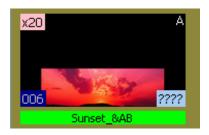
the options are to apply the transition to all stacks or the direct Main 1 and Main 2 outputs.

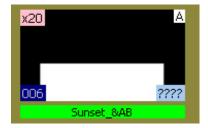


In the case of the direct Main 1 and Main 2 outputs this transition will be used when taking stills directly to the outputs either by dragging and dropping or from the external keypad.

Show Alpha

Stills with active Alpha channels are shown with 'A' in the upper right corner, when Show Alpha is selected the image will temporarily change to show the associated Alpha still.

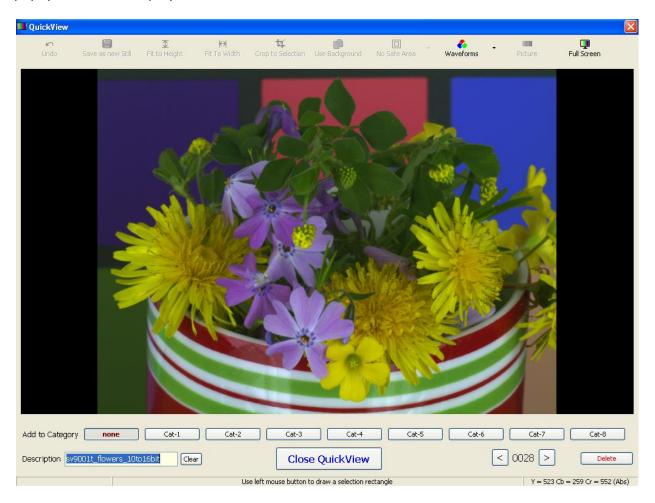




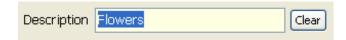
QuickView

This option can be used a quick large view of the recently grabbed images so enabling them to be selected or discarded. Also basic image manipulation can be performed without loading an external editor.

Double clicking a still in the Local, Category or Recent lists, or selecting QuickView from the popup menu will display the still as shown below.



At the bottom of the screen are a set of 'Category' buttons clicking on these buttons will add/remove the still from the selected category.



The Description edit box allows the still descriptive text to be changed.



The still number is shown on the right hand side in between two arrows that select the previous and next numbered still.

Finally on the extreme right is a delete button to remove the still from the list.

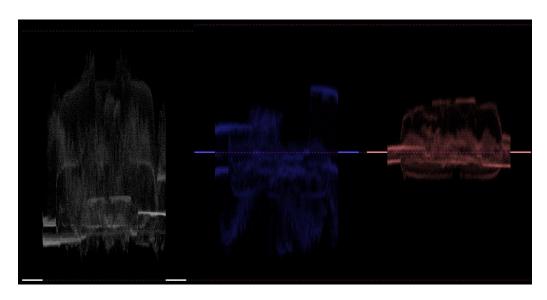
Along the top of the screen the only two buttons that are initially active are Waveforms and Full Screen.



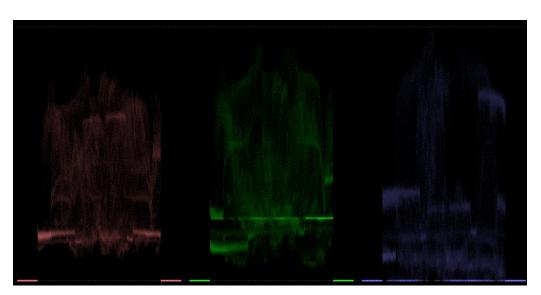
The waveform button has a drop down menu allowing selection of four different display formats



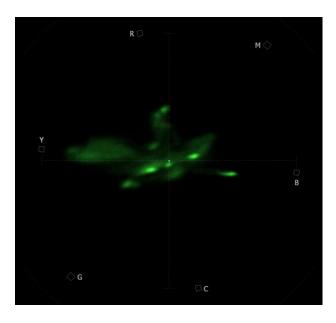
YUV



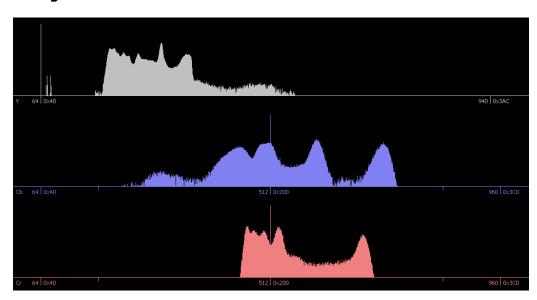
RGB



Vector



Histogram



The Full Screen button will display the image filling the VDU screen, if the VDU resolution is not 1920×1080 then the displayed aspect ratio may be incorrect.

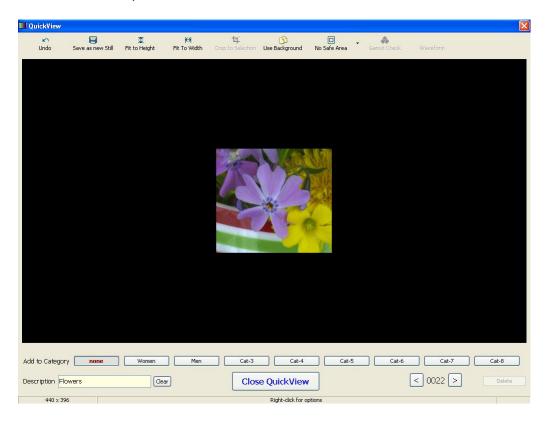
The Picture button is enabled when any of the waveforms are shown, clicking the button returns the display to picture editing mode.



To manipulate the image first use the mouse to drag a selection rectangle.



Then click on Crop to Selection



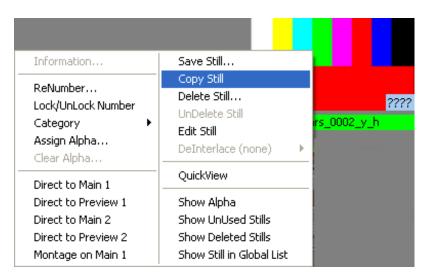
This image can now either be positioned by dragging around the screen with the mouse or fitted to the Width or Height of the display using the Fit to Height and Fit to Width buttons.

As an alternative to the fit to height or width options the cropped image can be manually resized by shift+left dragging the bottom right corner of the image. The resultant image can then be fitted to width or height.

The Safe Area drop down menu (75%..95%) allows the image to be positioned correctly within the scan. Alternatively the image can be zoomed in by selecting 105%..150%.



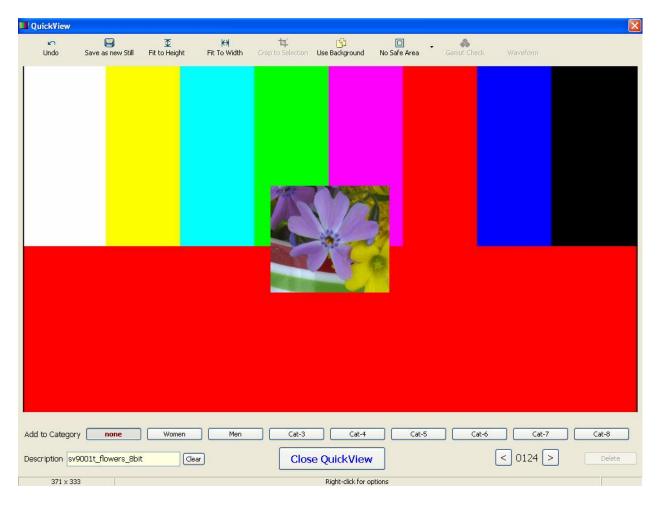
The cropped image can be placed on a background from the ImageOn clipboard. Before opening the QuickView window copy the still to used as the background to the clipboard.



After cropping the image the Use Background button will be active.



Clicking the button will place the cropped selection over the background still.



As an alternative to a still as a background a generic colour wash can be used. Before cropping the image drag a rectangle over the colours to be used right-click and select Set Background Colour.



This time when Use background is selected the cropped still is placed over the colour wash.

