



Aspector

Handleiding

voor Casablanca 3 en 4 evenals Windows PCs

MACROSYSTEM

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1. What is Aspector

As modern and high-resolution as our video cameras are nowadays, the formats that a filmmaker or filming photographer may have to use can vary greatly.

If you're filming with a high-resolution camera and only processing this one format, you don't have many format problems with a modern Casablanca 3 or Casablanca 4 unit and a modern HDMI screen.

However, if older formatted material e.g. 4:3 formats film, photographs, mobile phone material, etc., are to be combined with material from the latest digital cameras, a film maker can be faced with a considerable number of formatting issues.

Thanks to the import options introduced from Bogart 7 onwards, all material can be changed to a single format, but the results often look rather sad, such as black edges, distorted figures, or heads and feet cut off the subjects. To ensure the viewer sees only a smooth and elegant film takes considerable planning and effort by the film editor.

This is exactly where the Aspector comes into play border corrections, whether with image content, patterns or colours, sharp or blurred, zoomed into the image, rotated, mirrored and alienated in all possible ways, is what Aspector is designed to achieve.

Aspector lets you make these changes in a way that enables you to see the results in real time, controlling each step with millimetre precision, all in one step, instead of many individual steps. This is the perfect integration of photo and video material of any format into a film, all from a single source.

2. Requirements

Aspector is compatible with all Casablanca systems running Bogart SE (from version 5.12 to 11.4).

Please make sure that the latest version of the Bogart systems software is installed.

3. Installation

Aspector, like all other optional add-ons, is installed from the main menu, under "Settings", "System", and then "Install Product".

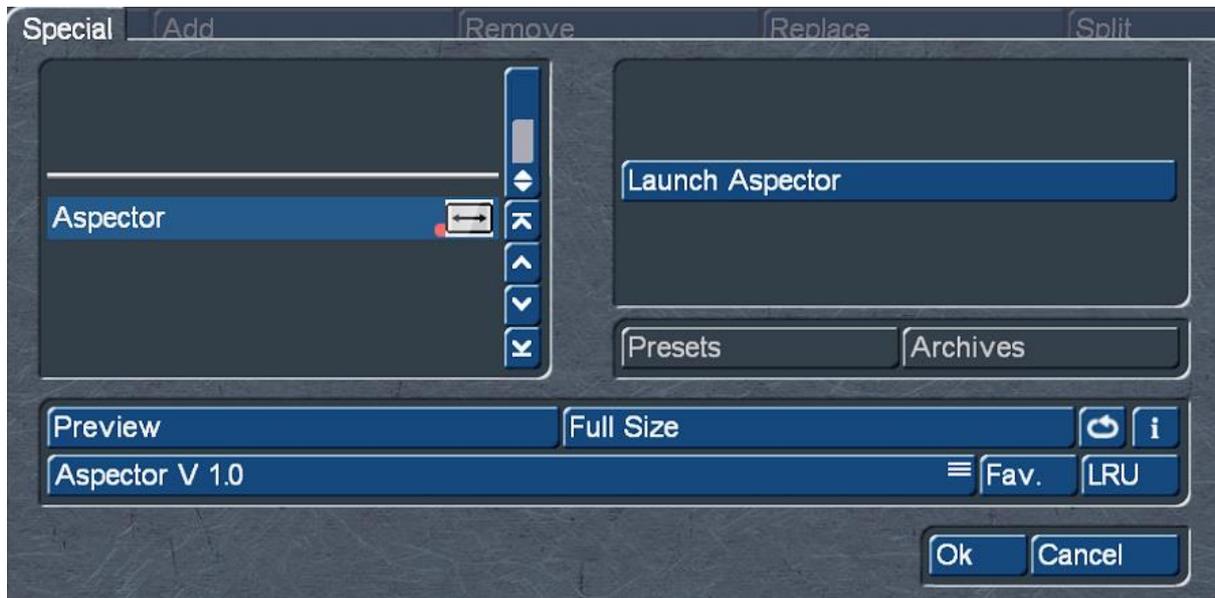
Bogart Linux: From the "Install Product" section, please insert the CD or DVD with the add-ons, wait a moment for the product to appear, and then select "Activate" to copy Aspector to the system hard drive.

Bogart Win: Aspector is found in a zip-compressed folder. When this folder is unpacked, you will see the "Aspector 1.xxx_EN.msi" file. Right click the Aspector file and "Install", which opens an agreement box. Click the accept box – "install" and then "yes" to install. The system will ask you for the unlock code, supplied by your dealer. Enter the 12-digit code and confirm your entry with "Ok". You can see a successful activation since "(active)" is displayed to the right of "Aspector".

Aspector can also be used as a demo version. You can see all the details and possibilities of the program, but the well-known "demo" sign is superimposed over the rendered scene.

4. Start Aspector

Aspector is opened in the “Edit” screen, usually with a scene highlighted in the scene bin and then selecting “Special” – “Aspector” “Launch Aspector” as shown **(Fig 01)**.

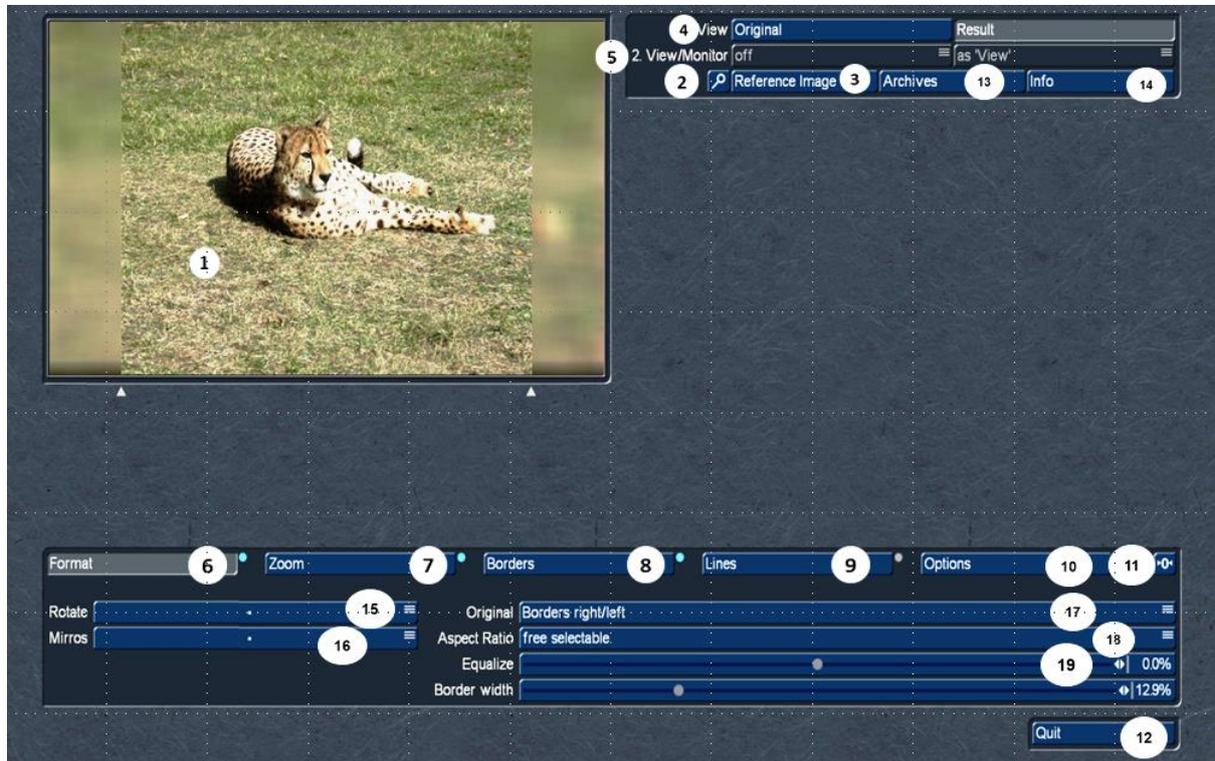


(Fig 01)

Aspector can also be used with the selected scene in the storyboard by selecting the “fx” button and then the “Aspector” effect. However, since effects added in the storyboard cannot have other effects directly added, e.g. titling, it is recommended that Aspector is used with a scene in the scene bin and then added to the storyboard from the scene bin after the Aspector effects are completed.

5. The main menu

After launching Aspector from the menu (**Fig 01**), the main Aspector menu (**Fig 02**) is displayed. As can be seen there are a number of buttons and sliders and using the added numbering, we will explain what is behind the options and what possibilities they offer.



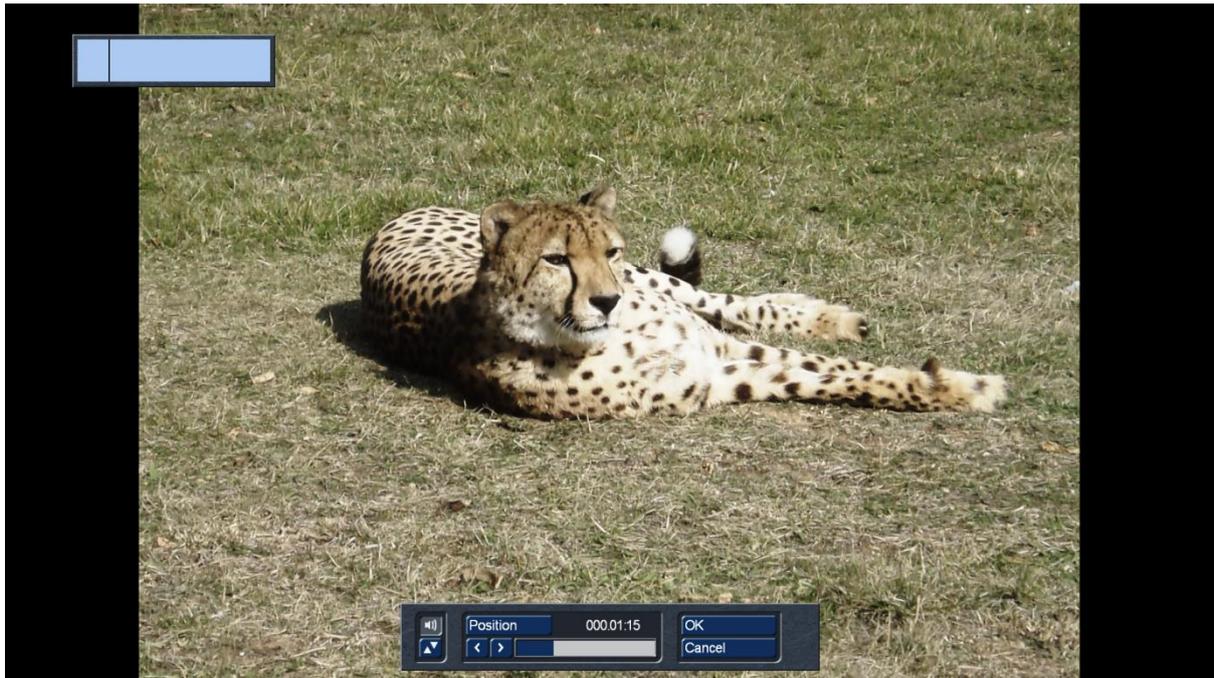
(Fig 02)

The preview window (1) shows the reference frame of the selected scene, in the scene bin. This is the reference image of the chosen scene, in this example a 4:3 formatted photo of a leopard lying on the grass added to a 16:9 formatted project.

The button (2) with a magnifying glass symbol zooms in to display the reference frame in full screen, a useful option when details matter.

If a different frame of the selected scene is required in the preview window, clicking this "Reference Image" button opens the scene (**Fig 03**) where any frame of the scene can be displayed by clicking the "position" button and scrolling to the required frame. Note: In this example the scene is a 6s still, so all the frames are identical.

Clicking "OK" returns back to the Aspector main menu.

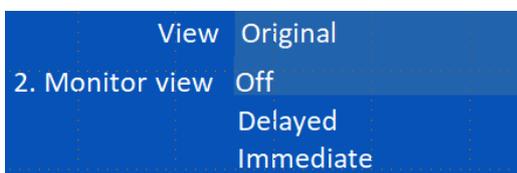


(Fig 03)

Top right, the “View” buttons (4) enable the option of the view window to be switched between the “Original” image (Fig 03) and the “Result” image that is created with Aspector, as seen in (Fig 02).

If the 2 monitor operation has been activated, the second monitor can be selected to show the “Original” or “Result of the effect changes (similar to the small preview in the one-monitor mode). The monitor can then be changed from "off", "delayed" or "Immediate", under "2nd monitor view" (fig 04).

“Delayed” does not update the image on the 2nd monitor until a slider has been pressed. "Immediate" shows each change immediately.



(Fig 04)



(Fig 05)

After activating the second monitor there is a choice of which view it should have, the original or the resultant view (Fig 05), similar to the small view option.

"Archives" (13) opens the “Settings – Archives” options where the settings that may be required again can be loaded and saved for further use as necessary.

"Info" (14) gives information about the currently installed version and the length of the scene used.

6. Format Setting Options

Probably the most common format changes will be the 4:3 scenes that are required in a 16:9 project, although this may not always be the case. It may be required that mobile phone, panoramic shots and the many photo aspect ratios will be added to a different project format. Therefore the button “Format” **(6)** enables various other fine tuning options as follows.

By clicking the “Rotate” button **(Fig 06)** the scene can be turned by +90, -90 or 180 degrees. This is particularly useful when editing material taken by a mobile phone which is to be added to the project.



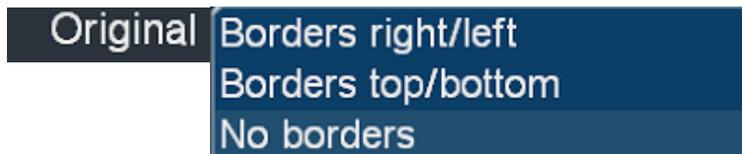
(Fig 06)



(Fig 07)

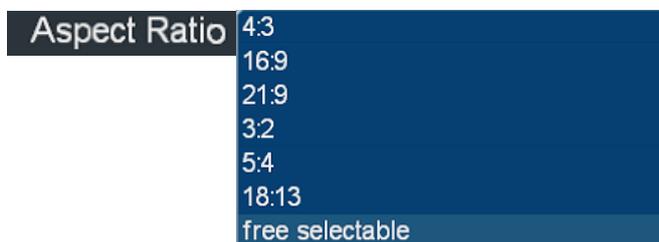
(Fig 07) In addition to the standard formatting, clicking the “Mirrors” button **(16)** the image can be mirrored horizontally or vertically. This can be useful, if for example we want our leopard subject to face left instead of the original right.

Button **(17)** is where the borders of the original image are defined, i.e. borders left/right, borders top/bottom or no borders **(Fig 08)**.



(Fig 08)

If a format is known e.g. a 4:3 clip, button **(18)** enables the aspect ratio of the image to be selected in order to first enter or define the areas to be edited **(Fig 09)**.



(Fig 09)

The “Aspect Ratio” lists the most used video and photo formats. When selecting a format the view window **(Fig 10)** shows the corresponding positions of that format, with the white arrows. In this example the selection of the 4:3 setting when applied to the 16:9 ratio scene with black borders **(Fig 3)**, is as close as possible to the real dimension of the scene adjustments.



(Fig. 10)

If the selected fixed format gives the correct look to the margins of the scene, as with the image (**Fig 10**), then no further adjustments will be necessary.

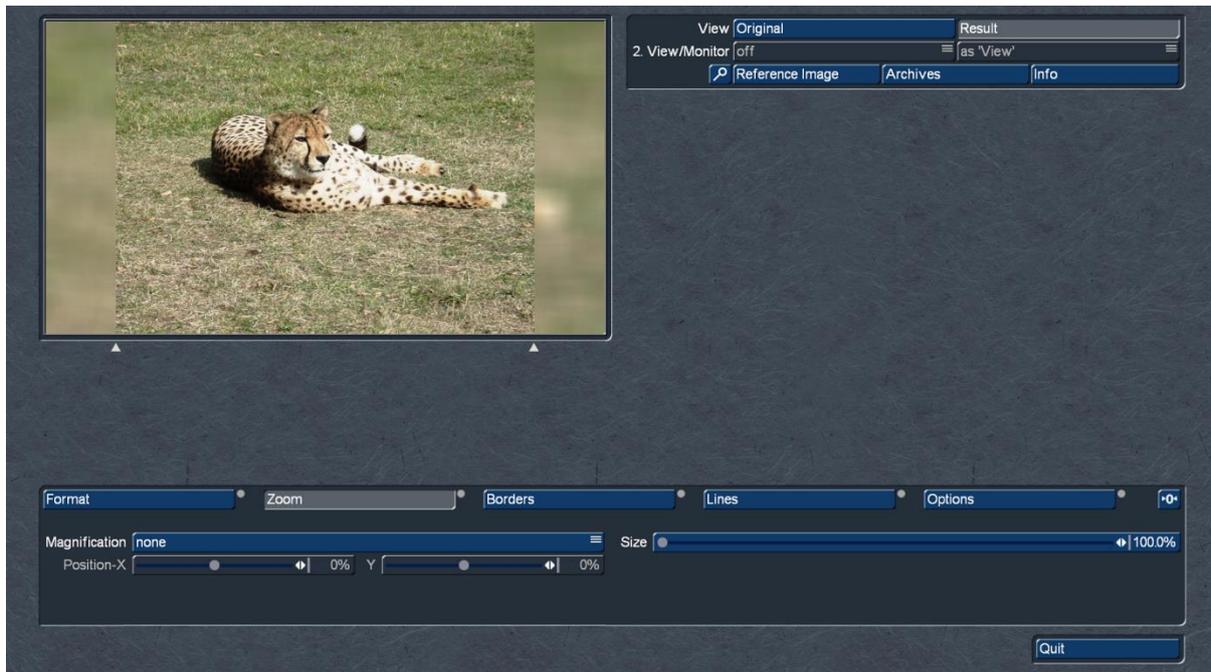
However, whilst the pre-set aspect ratio can in most cases give the correct boarder edge effect sometimes, if for example the image is slightly widened or squeezed during import, there may still be a small black edge, between the image and boarder. This can easily be corrected using the “Border Width” slider. The boarder width when selecting the aspect ratio defaults to a setting of 12.5% and a small change to 12.6% is usually sufficient to close the gap and eliminate the black boarder line.

At the end of the "Format" section, there should be a good-looking image in proportions without fringe areas.

Finally in this section, where no changes have been applied to a particular option, e.g. “Borders” the colour of the small circle at the end of the bar  will remain grey. If changes have been applied, then the circle will be a light blue. 

By clicking the  zero button (**Fig 11**) all the settings in the active option, e.g. “Borders” will return back to their original default settings. If required, all format settings can be reset in one go by downloading the "basic settings" under "**Archive**" (**13**).

7. Zoom Setting Options



(**Fig 11**)

The “Zoom” option (**Fig 11**) enables the scene to be increased in size until the boarders are completely covered, effectively taking on the project aspect ratio. However, this process can only be used in scenes where the subject zoom does not loose any essential detail, such as cutting of the feet and heads of a subject.

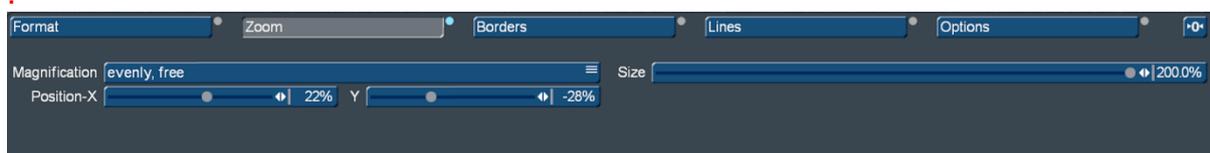
Our leopard's scene is a good example of where this could be used, since the scene can be zoomed in until the borders are completely covered, but losing some vertical grass detail in this scene would not be important.

The "Magnification" menu (**Fig 12**) provides various pre-set options, which can then be fine tuned if required. The default is "none"



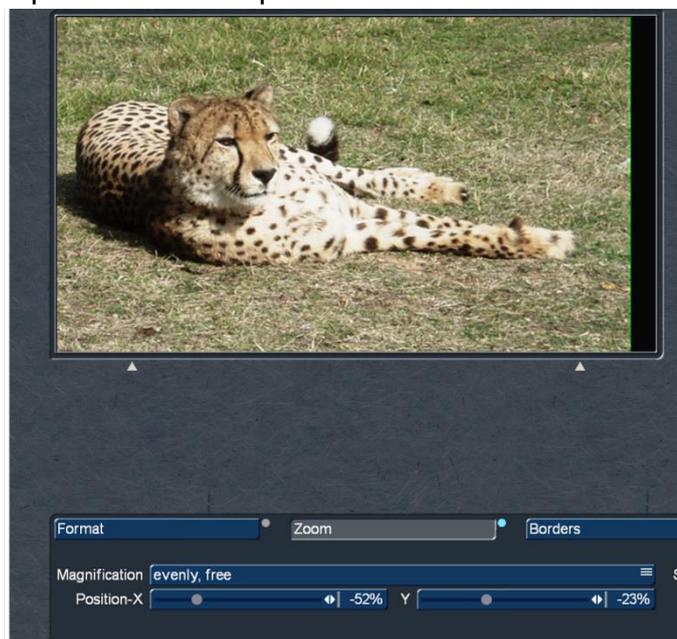
(Fig 12)

The option "evenly complete" automatically enlarges the 4:3 scene to a zoom effect of 134.1%, in this example effectively changing the image from 4:3 to 16:9, but not distorting the image. If this is the objective, then all that is now required is to select "Borders" and set the "Type" as unchanged (see below) and the margins will zoom away leaving an enlarged, undistorted and borderless scene.



(Fig 13)

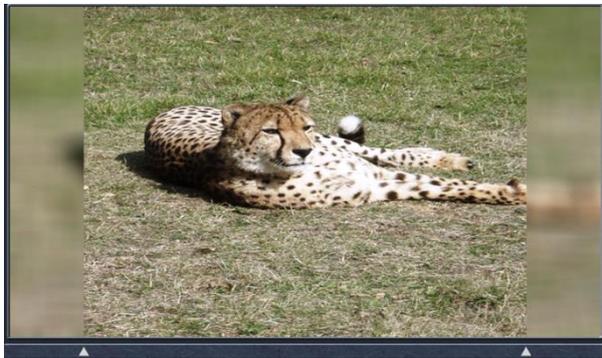
Setting the "Zoom"- "Magnification"- "evenly, free" and increasing the "Size" above zero, the "Position X" and "Y" sliders become active (**Fig. 13**). This enables the subject to be enlarged as required and positioned both horizontally "X" and vertically "Y". However, as can be seen (**Fig 14**) moving the "X" slider, in this example, too far left, the black border will come into the picture at some point.



(Fig 14)

When zooming with a video scene, remember you are working with just one frame, which by its self may look good, but even a slight camera movement in a video could produce an unpleasant scene effect with an over zoomed video setting.

The "distorted" option horizontally stretches the 4:3 image and can even become part of the boarder (Fig. 15).



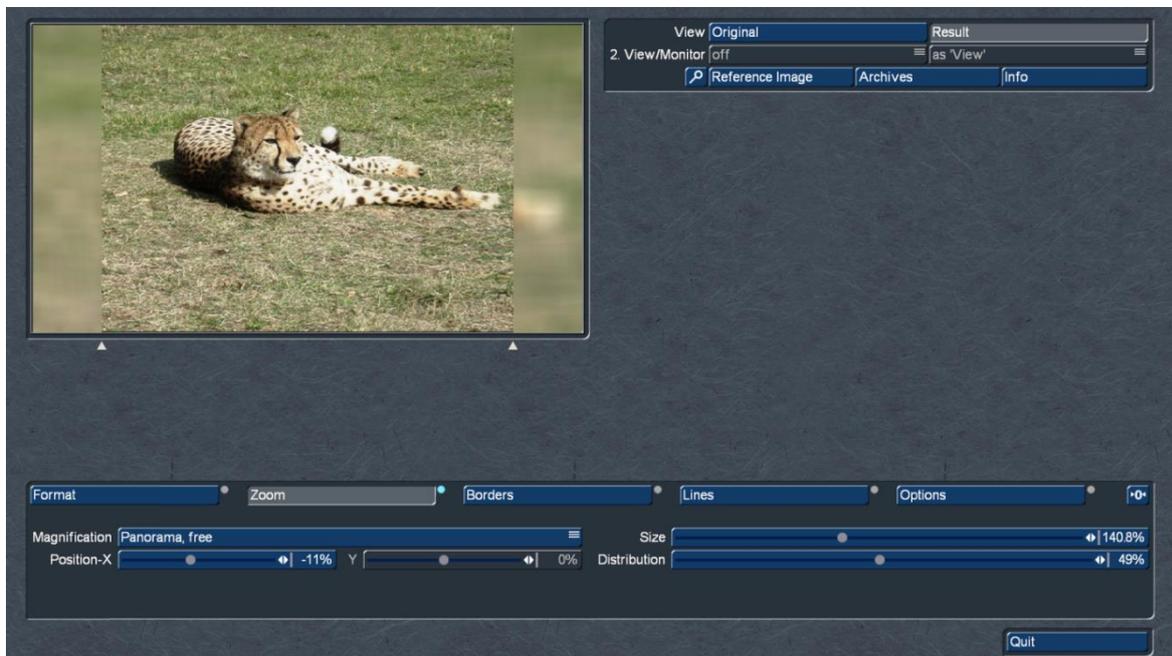
(Fig 15)



(Fig 16)

With "distorted, complete" the pre-set size of the image defaults horizontally to 134.1%, as seen in (Fig 15). With "distorted, free" the pre-set size is 100%, i.e. the undistorted image. With "distorted complete" the "Position-X" slider is also available, defaulted centrally to 0%. Moving this slider left or right pushes the image towards the edge, as can be seen in (Fig 16) which in this example has been moved about 78% to the right.

With either the "distorted" or "panorama" modes the vertical "Y" controller is unavailable.



(Fig 17)

“Panorama” is a process that disproportionally distorts the image by retaining the centre of the scene almost unchanged whilst elongating the left and right sections of the scene until the black edges are covered. This edge distortion in most cases is largely unnoticeable, especially with running video, since the viewer usually focuses on the action in the scene centre. With “Panorama, complete” there are pre-sets which in our example the zoom “Size” is 134.1% to compensate for the 4:3 format and the “distribution” (distortion) of 60%

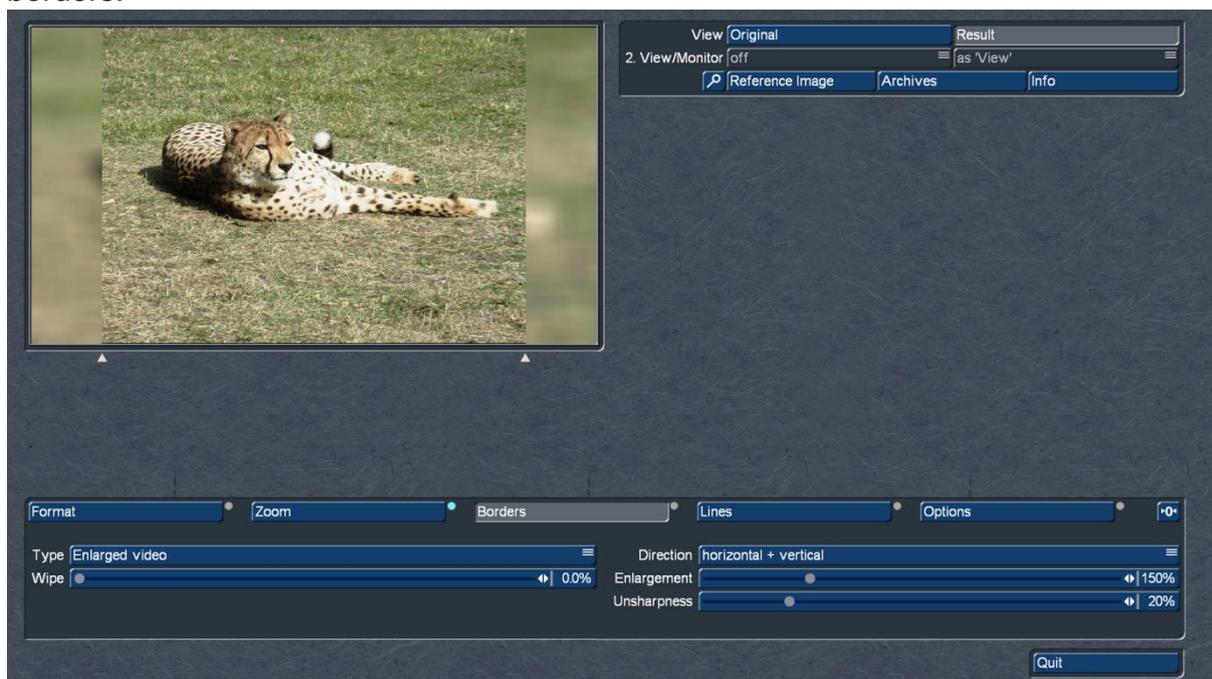
As soon as you change the size or the distribution, the setting jumps to "Panorama, free" (**Fig. 17**) and you can either zoom in or out with "Size" and distort the image at the edges (and at some point in the middle).

If the subject (the un blurred image) slips out of the centre of the scene during the operation, the whole zoomed and distorted image can be repositioned again using the "Position X" slider.

At this stage the blurred scene edges are still seen, but these can be removed using the edge setting in the next section.

8. Border Setting Options

Having completed the look of the image, the next step is to deal with the scene borders.



(Fig 18)

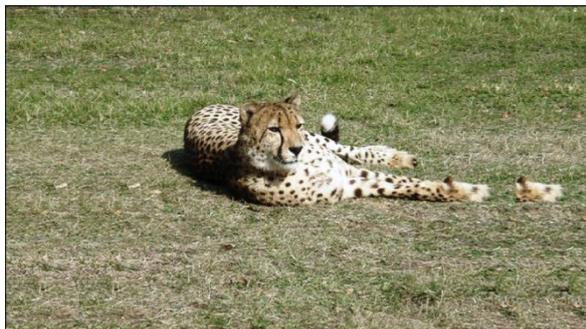
Upon opening “Borders”, the default “Type” is “Enlarged video”, as can be seen in (**Fig 18**). At this stage the blurred left and right edges are on either side of the 4:3 scene. The settings in the following section are referring to the scene edges, not the main scene.

The default for the "Borders", "Type" is "Enlarged Video ", as seen in **(Fig 18)**. Therefore the left and right edges of the screen are still the standard blurred scene edges covering the black, to make the gap between the 4:3 scene on the 16:9 format more attractive.

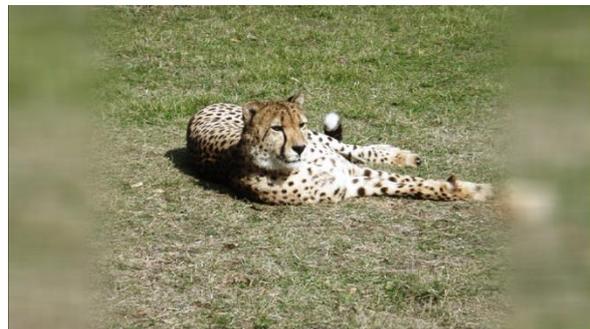
The "Direction" determines if the edge zoom is adjusted "horizontally and vertically" in equal proportions or "horizontally only" which stretches the edge horizontally, but leaves the vertical magnification unchanged.

The "enlargement" default is set to 150% so that the boarder does not simply repeat itself and the "Unsharpness" to 20%. Repeat boarder image could be irritating and should normally be avoided. In addition to the magnification, the blur (Unsharpness) contributes to concealing the fact that the boarder is just a repeat of the image edges.

To illustrate what we normally do not want, in **(Fig 19)** the values have been set to 100% and 0% respectively where the boarder is simply a repeat of the image. This merely shows the leopards paw on the right as a separate image in the boarder.



(Fig 19)

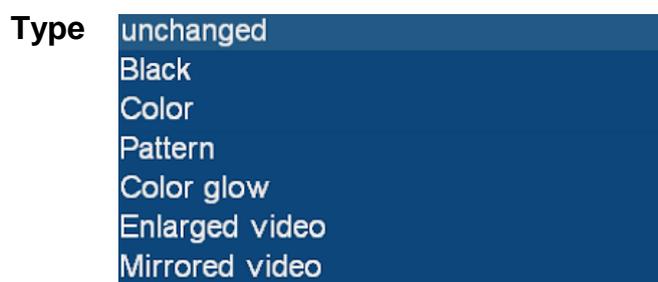


(Fig 20)

Since this is not what is normally required, first set the "Enlargement" to its default of 150% and "Unsharpness" to 20% and then as necessary make further adjustments to produce the required border effect.

However, as seen in **(Fig 18)** there will still be sharp edge between the image and the boarder. Therefore to further blend the scene with the boarder we next select the "Wipe" slider. This slider, which can be can be adjusted from 0% to 10%, in increments of 0.1%, will change the sharp edge of 0%, seen in **(Fig 18)**, all the way through to the maximum 10%, shown in **(Fig 20)**.

Whilst "Enlarged video" is the default and probably the most used, clicking "Type" opens more ways in which to design the edge, as can be seen in **(Fig 21)**.



(Fig 21)

"Unchanged" leaves the borders black. This only makes sense if the scene can be zoomed in until the borders are completely covered with the main scene. Normally this is only possible if zooming in can be undertaken without losing any of the essential vertical detail, such as the subject heads or feet, i.e. we are zooming in until the sides fill the screen, but this also zooms out the top and bottom of the scene.

"Black" adds a new black border, which for a 4:3 video on a 16:9 project would seem unnecessary, since this program is all about replacing the black borders. However, in some other formats or cinematic video, black may be applicable for changing the border into a soft edge using the "Wipe" function.

"Colour" opens the Bogart colour palate (**Fig 22**) where a colour can be selected to fill the borders. In this example the border colour was selected using the "Pick Colour" option, with the top of the leopard's fur above the nose as the reference. Also using the "Wipe" function at 6.0% gave the boarder a soft edge as can be seen in (**Fig 23**).



(Fig 22)



(Fig 23)



(Fig 24)



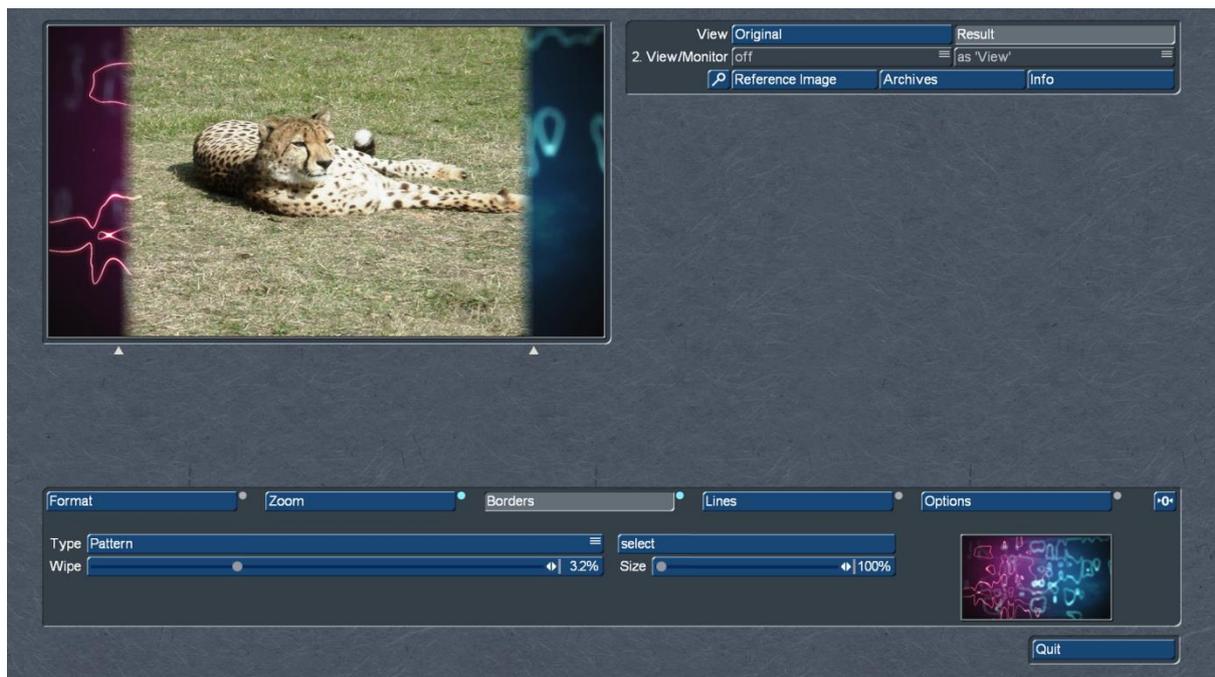
(Fig 25)

Alternatively, (**Fig 24**) the border colour is generated from a sample of the grass area. (**Fig 25**) uses a colour from the leopard's chest area and a "Wipe" setting of 10%, giving a very soft boarder / scene interface.

The border Type "Colour", together with the many "Wipe" settings provides a wide variety of boarder scene options.

“Pattern”

Selecting “Pattern” opens the “Select Pattern” menu, where under “Product” we have access to all the product options from Arabesk to Ultimate Spice.



(Fig 26)

In (Fig 26) the “Type” – “Pattern” has been selected, with an Arabesk Background image, which after clicking OK is used as a border for our 4:3 image. The “Wipe and “Size” sliders can now be adjusted as required to form a suitable boarder to the 4:3 scene.



(Fig 27)



(Fig 28)



(Fig 29)



(Fig 30)

(Figs 26 to 30) show how selecting a pattern, the left boarder is the left side of the pattern and the right boarder the right side of the pattern.

In the lower right of **(Fig 27)**, the black and white mask from Magic Lights is shown, which is the pattern used in the border. However, this pattern has also been colourized by first clicking the "Select" button **(Fig 26)** next the "Colour" button from the "Select Pattern" and then two of the "Colour" option buttons, to change the black and white border pattern into the green and yellow seen in **(Fig 27)**.

(Fig 28) the border is a pattern from the Celebrations package, **(Fig 29)** from big maps and **(Fig 30)** an imported photo placed in the image pool. There are endless options for adding boarders to make mixed format material into attractive scenes.

Again, as used in **(Fig 27)**, the "Size" slider enables the edge pattern to be increased in size from 100% to 200%, giving more options for the final look of pattern border.

"Enlarged video"

The modes "Black", "Colour" and "Pattern" all produce a static border, which is fine for a still scene. However, for say a 4:3 moving scene within a 16:9 project, a static border may not have the right look. The "Type" setting "Enlarged video" produces a border that is taken from each frame of the outer edges of the 4:3 video and is therefore also moving in synchronisation with the video main scene.

Since the border is a repeat of the scene outer edges the "Direction" will normally be "Only horizontal", with "Un-sharpness" and "wipe" being the other adjustments. Slight adjustment to the "Wipe" and "Enlargement" could improve the overall look of the moving scene.

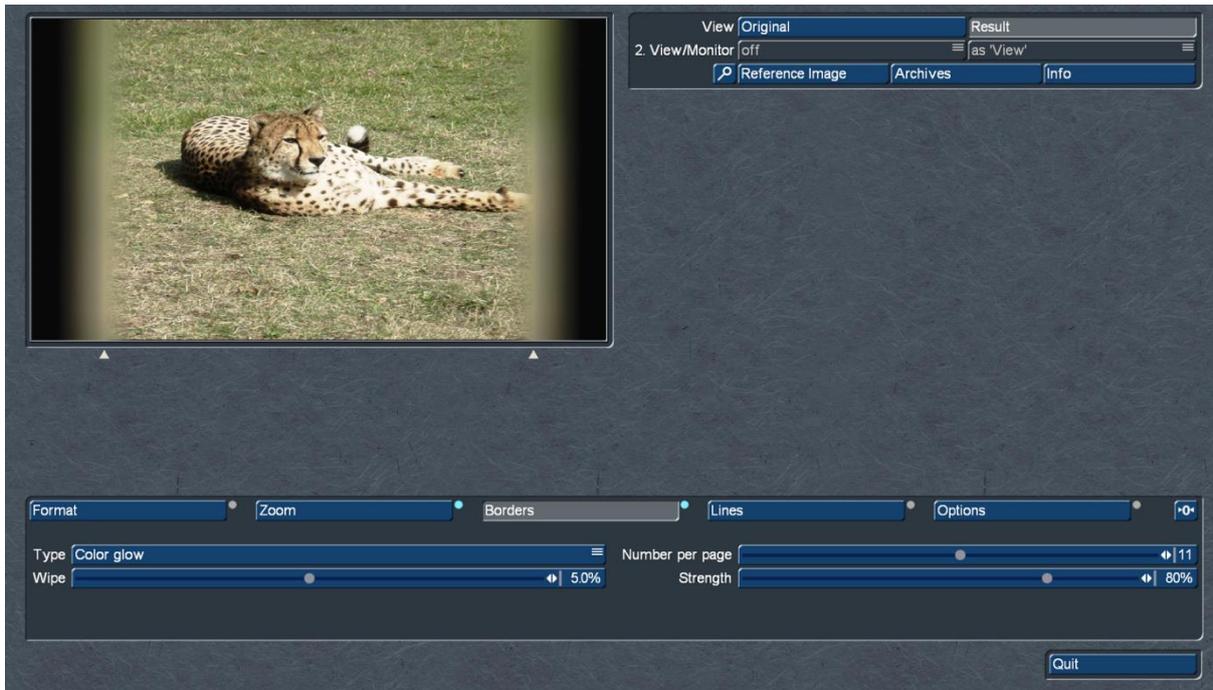
Note: These adjustments are a matter of opinion, but say the "Direction" is set to "Horizontal + vertical" and the "Enlargement" to more than 100%, a scene of a moving object will not match the border. An example, say we have a train moving across the screen left to right, with an enlargement of 150%, the border will have a blurred train image taller than the train in the scene image. However, the same train with a direction of "Only horizontal" or an "Enlargement" of only 100%, the blurred border will match the train in the scene.

Colour glow"

The "colour glow" type works similarly to the "Ambilight©" technique developed by Philips. "Ambilight©" is derived from ambient (i.e. "environment") and light (i.e. "light") and is used to spare the eyes of the TV viewer when looking at the luminous screen in a mostly darkened room.

Here, the colours contained in the edges of the video are projected into the surroundings of the TV frame, the hard screen edge is visually dissolved in this way, the contrast from bright to black is no longer so strenuous on the eyes.

The Aspector does the same by projecting the edge colours of the video onto the black edges **(Fig. 31)**. These projections are dynamic (i.e. moving), since the video film edges are also in motion.



(Fig 31)

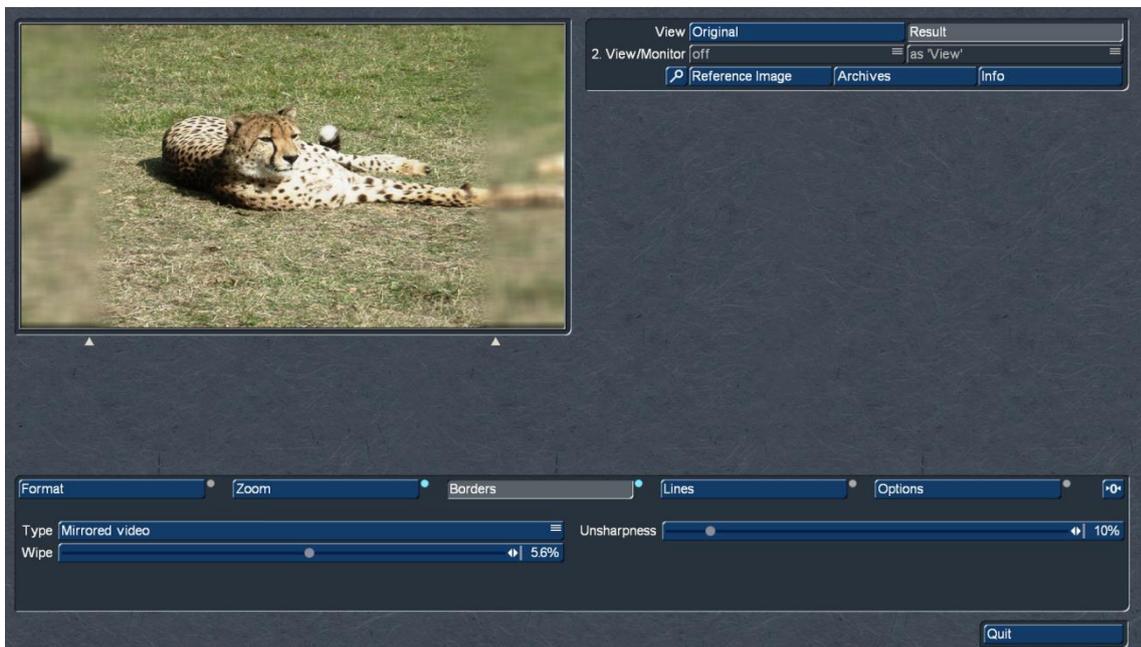
"Number per page" defines how finely the border is divided, i.e. how many "light sources" are set. The settings range from 1 to 20.

"Strength" determines from 0 to 100% how much the black border is illuminated by the colours of the image e.g. how far the scene colour fades into the border.

"Wipe" defines the transition depth or the fade between the video and border.

“Mirrored video”

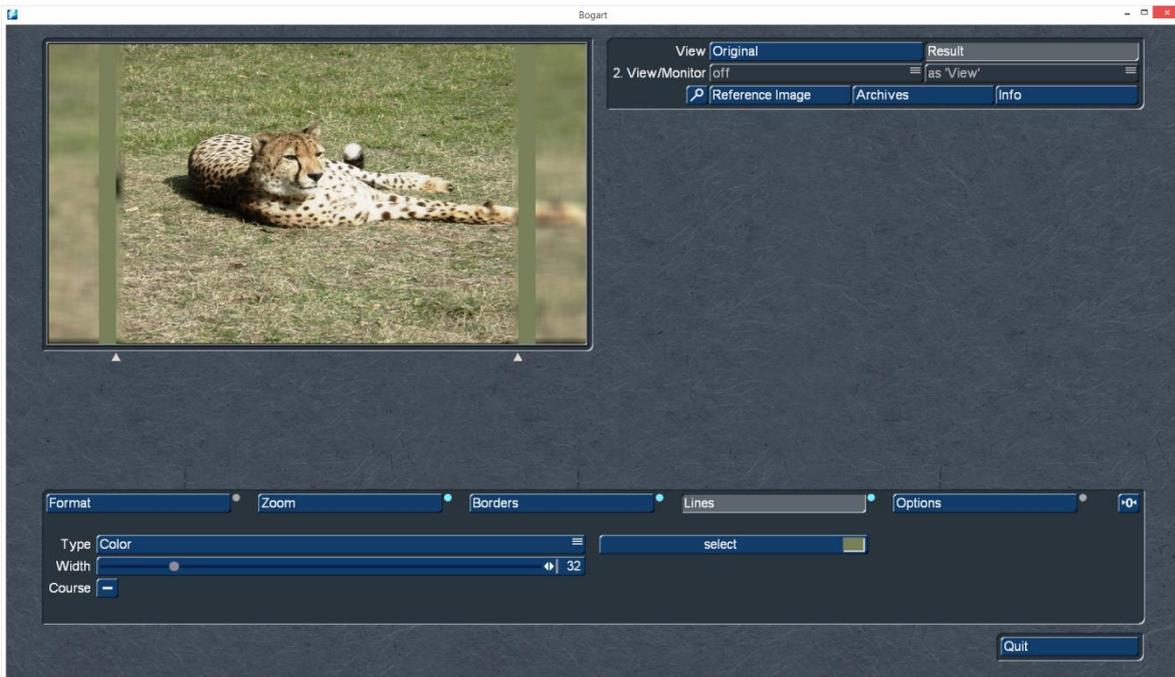
Here, the respective border is a mirrored image of the main scene, see **(Fig 32)**



(Fig 32)

9 Line Setting Options

Under “**Lines**” there is an option to add a coloured line from the edge of the scene into the border area. There are three options under “Type”, the first being “**None**”.



(Fig 33)

As can be seen in (FIG 33) the button “**Colour**” places the two lines between the scene and border, then clicking the “**Select**” button opens the “**Choose colour**” facility (Fig 22) to enable the choice of line colour from the palette or “**Pick colour**” the line colour can be chosen from the scene.

The “**Width**” sets the thickness of the coloured line, whilst a tick in the “**Course**” box then provides a soft transition between the edges of the line and the scene / border.



(Figs 34)

Whether one opts for the “**thicker**” variant from picture 34, or for the more elegant thin lines of picture 35, is a matter of taste.



(Fig 35)

The line options are not essential, but do offer a variety of ways to improve the look of the scene interface.

The next "Type" option is "Pattern", which is similar to the "Borders" and "Pattern", except it provides an additional layer between the border and the scene instead of a colour.

(Figs 36 to 39) show various colourful variations of border and line options, each showing a sample of the pattern background, lower right, used to create the lines. Whilst these may be very colourful and not to everyone's taste, they are an example of what can be added to 4:3 scenes in an otherwise 16:9 project. These by no means hide the fact that scenes of differing aspect ratios are present, but can offer a more attractive view to the normal black bars.



Fig 36



Fig 37



Fig 38



Fig 39

10 Options

In "Options" the entire image can be sharpened or slightly less sharpened.

The "Sharpness" range is from -8 to +8 with a pre-set of 0. The picture in (Fig 40) has a sharpness of 0, with the magnified views to the right showing -8 and +8 sharpness.

Options is another fine tuning tool for completing the video.



Fig 40



(Fig 41)

Finally after completing all the Aspect effects, **(Fig 41)** shows a scene with the standard border effect applied to a 4:3 image within a 16:9 aspect ratio project. Whilst this is an improvement from the normal black bar version, **(Fig 42)** is just one of many options that can be applied using Aspector in making a mixed format project a very professional looking video.



(Fig 42)

Once having completed all the Aspector border work, clicking the “Quit” button **(Fig 02)**, returns back to the “Special” menu **(Fig 01)** and the scene effects will be rendered by clicking the “OK” button.

After rendering is finished, the new scene complete with new borders will be in the scene bin or if you started, if Aspector was open from the storyboard.

The advantage of using the Aspector in the long-term effects (storyboard) is that you can add new edges to several scenes in one go. At the same time, as mentioned above and as always with the long-term effects, one has to live with the fact that titles cannot be counted in parallel. We therefore tend to recommend using the Aspector under "Special".

11 Closing Comments

We hope to have explained the functionalities of the Aspector program and provided suggestions as to how borders can enhance a scene appearance, which without Aspector would otherwise be a tedious and time consuming process.