



# JALEO OCTANE 3.0

## UPDATE DOCUMENTATION

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# Introduction to Jaleo 3.0

Jaleo for Octane version 3.0 presents many improvements over the versions 2.7 and 2.8, with a special emphasis on the editing capabilities. Apart from the new features, other aspects such as storage options and other configurations have been widened. Below follows a brief description of the improvements found in this version.

These brief release notes are intended as a reference guide to the new features of this version. Basic knowledge in the functionality of Jaleo is presumed. An in-depth review of previous versions can be found in the main User Manual.

In addition, the entire Jaleo manual is also available as Adobe Acrobat (PDF) files for on-line viewing with search and cross reference capabilities. Consult the toolchest in your home directory to see the online pages.

The Jaleo Team.

# New Features

This Octane 3.0 version is characterized by many improvements in the editing capabilities as well as other general improvements. The main highlights are:

- **Transition mode for binary effects and template groups:** this allows the building of transitions, wipes and other binary effects in a simple linear construction. It is an optional mode in addition to the current way of setting up effects.
- **Editing:** editing will be greatly improved as a result of the above and many other enhancements. Some of the new features are: accurate mark on the fly with global and edit marks; layer locking for editing commands; improved viewing of information such as edit marks, position and duration; independent 3 & 4 point editing across all utilities.
- **DVE:** the DVE module has been reviewed and improved. It provides more control over input layers like transparency and composite-on-black. Also, colored lights are now available, with spot control. The DVE now has multiple working modes to deal with some special cases like multiple intersecting, transparent objects.
- **Effects improvements:** the current f/x set has been reviewed and optimized: many of the f/x have been made more consistent and complete. Also, creation of template f/x is now easier.
- **Improved interface:** the interface has been simplified for some operations allowing operations to be performed in a more direct manner. Zoom functions will be consistent over the total range of Jaleo tools. One important new feature is the capability of long range viewing, allowing hours in a single Reel as well as additional zoom factors in height. Strip-mode for clip display in the reel will allow continuous sequences to be seen at any horizontal zoom factor. Other improvements include: local/global layer space insertion, undo response and other viewing details (time-editor, flow-monitor, motion-tracking). The Reel also provides a fine jog/shuttle tool easily accessible at any time. Monitors can now be resized to any size and zoomed directly to support any setup configuration.
- **Image sequences can now be imported by reference.** A new API and related commands will be provided to write utilities and scripts to access the Jaleo XFS file format and manage material. This is intended to replace the I/O module and open up the system to enable complementary I/O tasks. Quicktime is now supported as well; Cineon 10 bit log files can be read and color corrected by a LUT before being converted to 8 bit.
- **Audio enhancements:** these include some extended monitoring capabilities as well as improved scrubbing, with jog/shuttle modes. Audio evaluation will be consistent with video.
- **Reel-to-Tape feature:** to fully take advantage of the real-time f/x, Jaleo allows frame accurate dumping to tape directly from the reel; providing such features as renumbering of the start time code as well as the ability to specify the destination point on the tape.
- **Storage support:** support of Fibre Channel configurations will be provided for some manufacturers such as Eurologic, Ciprico and Storage Concepts.

- Other utilities: modules like the Loader and Gallery are improved and made more consistent with the new editing functions. Live video viewing is available from these modules, removing the need for the Flipbook utility. Other functions like the deletion of materials is accessible through the Loader, thus removing the need of the Dustbin. The Gallery allows different display and sort options and also retains its state from last usage. The burning of Time code on live window is now possible.
- Motion tracking has been improved in performance, precision and allows for different tracking modes (track, stabilize and smooth filtering)



# Hotkeys

Below you will see a description to the shortcuts in common program features found on Jaleo 3.0s as a set of new Hotkeys were added to this version and others were standardized and conformed throughout the software.

## Reel

### Jog and shuttle mode

Alt + Control + Left-click	Jog
Alt + Shift + Left-click	Shuttle

**Note:** These controls are uniform throughout the display of the DMC (Dynamic Motion Control) bar, in the RtVideo and VTR you must place the cursor over that bar to activate the shortcuts.

### Mouse

Right-click	Send clip to monitor.
-------------	-----------------------

Only when 'Selection to monitor' toggle is activated

### Trimming clips

Right-click + Left-click + dragShift trim

Placing the mouse in the middle of the clip and clicking simultaneously left and right buttons will shift the entire range of the clip.

Alt + Left-click	Extend trim
------------------	-------------

Extends the clip without affecting the position of the curves in the time editor instead of scaling the curves with the trimming.

Ctrl + Left-click + Right-clickPush trim

Neighboring clips get trimmed together. Push the adjacent clip while trimming the selected one.

### Video control

Right arrow	Play forward
Left arrow	Play backward
Shift + Right arrow	Fast-forward play
Shift + Left arrow	Fast-backward play
Alt + Right arrow	Next frame
Alt + Left arrow	Previous frame
Ctrl + Right arrow	First clip in Reel
Ctrl + Left arrow	Last clip in Reel
Up arrow	One level up in Reel
Down arrow	One level down in Reel
Spacebar	Stop
Shift + Spacebar	Accurate Stop (Reel only)

**Note:** Stop, cancel the play operation. returning control to the user only after it has evaluated the call to stop, placing the monitor in the current position.

Shift + Spacebar marks the position where the system got the call to stop and goes back to that point once the background process is finished.

This is very useful while cueing audio, or placing accurate marks, using a simple monitor as guidance, in video editing. Jaleo will calculate the accurate position of that mark according to the play-back speed.

## Edit Marks

I	"In-point"
O	"Out-point"
K	Erase "In-point"
L	Erase "Out-point"

**Note:** Editing marks are compact throughout the software. These Edit marks are now accurate when used in the Reel.

T	Edit marks around selected clip
---	---------------------------------

Tab	Jump next clip or global mark.
Home	Monitor to global "in mark"
End	Monitor to global "out mark"
Shift + home	Monitor to play "in mark"
Shift + end	Monitor to play "out mark"

## Global marks

Q	Insert accurate global mark in the current monitor position
W	Delete selected global mark, a mark must be selected.

## Play Marks

Ctrl + Shift + I	Set "In-point"
Ctrl + Shift + o	Set "Out-point"
Ctrl + Shift + k	Remove "In-point"
Ctrl + Shift + l	Remove "Out-point"
Ctrl + Shift + t	Marks to Selection

**Note:** All the reel marks are now independently placed. It is possible to have an "In mark" with no Out or no marks at all. (ref to Loader/Gallery: inserting clips)

When defining time range within any Jaleo tool, "In point" is inclusive and "out point" exclusive. By this we mean that like all traditional editors, the In-point marks the first frame to start editing on and the Out-point is saved, excluded from the editing.

These hotkeys are affected by the manual input of values or time codes in the input window as follows

10 + I	In point move to 00:00:00:10
- 10 + I	In point minus ten frames
1:00:00 + I	In point mark in 00:01:00:00
50 + T	Keeping "in mark" in place, move out point to conform a total length of 50

## Monitor

F6	Zoom in
F7	Zoom out
F8	Reset
F9	Center
Ctrl + Alt + Left-click	Pan

**Note:** These controls are uniform throughout the software in all monitors and window displays. Once the clip has the same size as the window, panning will be disabled.

**Limits:** Only in the Morph, Paint, and Motion editor modules can you pan out of image, allowing trackers and strokes in that area to be positioned.

## Loader & Gallery

These shortcuts only affect the selected clip in either application. Once the far end of a clip is reached the command will not proceed to the next clip, you have to select another clip manually.

Tab	Move forward in the clip, from beginning to end, stoping in the editing marks.
Shift+Tab	Go to previous mark in clip.
Begin	Go to clip in-mask, if not found, default is start of clip
End	Go to clip out-mark, if not found, default is start of clip

# Customizing/Troubleshooting the Setup

Upon start-up Jaleo reads the file `.jaleorc`, found in the `JALEO-ENV/` directory of the Jaleo user account. This file contains a number of optional settings that are used to configure Jaleo.

Not all the options need to be present in the files, because there are default values defined by the software.

This new version included a series of new parameters and changes in old parameters that you need to review carefully. The following section describes these parameters.

Some of these parameters and files are for internal use only and we recommend that you do not touch them unless directed to do so by a Jaleo support representative.

## SETUP VARIABLES

This is the list of the new variables included in Jaleo 3.0.

Variable: **EXTRA\_VITC\_LINES**  
Default: 0  
Allowed values: 2 to 20, in increments of two (one extra line from each field)  
Description: The active area of the live video stream will be increased upwards, to include off-screen information like VITC, closed captioning, or keycode data stored in these lines. Inside Jaleo, the working image resolution will be increased by this number of lines. Even if Jaleo does not contain tools to actually process this information by now, it can be preserved with the image and recorded back to the tape, allowing for example to edit telecine material preserving the embeded keycode in the results.  
  
The extra lines are not treated in any special way while inside Jaleo. They are considered just a part of image. Therefore, any effects applied are likely to corrupt it.

Variable: **PAL\_PLUS**  
Default: FALSE  
Allowed values: TRUE or FALSE  
Description: Only in PAL mode, the image "aspect ratio", toggles the monitor display between 4:3 and 16:9. If the setup is in the NTSC video standard, it will be ignored. This variable only affect the display on the monitor. To define image aspect ratio use the `SCREENRATIO` variable.

Variable: **OLD\_SIZE\_RULES**  
 Default: FALSE  
 Allowed values: TRUE or FALSE  
 Description: The rules to handle images of size different from the Setup, have been revised. In versions up to 2.8, all images were just cropped/padded to setup size when used as an entry for any effect but DVE (this will be explained latter).

In the 3.0 version, if ALL entries of a given effect are of the same size, (even if not the setup one), it will be used as a processing size, and the result of the effect will be also of this size.

This new rule allows you, for example, to merge an extra size image with its external matte, and color correct it, before mapping it using a DVE to definitive resolution - creating, for example, a pan of a huge, hi-resolution background cutout.

However, this change of rules, in one case described below, could cause backward compatibility problems. If this is the case, switching the variable OLD\_SIZE\_RULES to true, the old rules will apply. For any new production, OLD\_SIZE\_RULES should remain on FALSE.

In the special case of DVE effects, all the tracks are mapped (instead of cropped/padded) to the resulting size (both in 3.0 and pre-3.0) as set with IMAGESIZEY and IMAGESIZEX. However, if the extra-sized track is the only entry of the DVE, it would now cause the result to also be this size (see above). In this case, just put a black "Solid" effect as a background, to reinforce the setup as the resulting size. Use the following table as a guidance:

Background	Track 1	Track 2	Result
2K	2K	2K	2K
2K	PAL	4K	PAL*
PAL	2K	2K	PAL*

\* Taken PAL as the STANDARD.

**Warning:** Even if the intermediate results can produce images of varying size, obeying this rule, the final result is always forced to fit the STANDARD size.

The old variable, **GL\_RENDER\_FLAGS**, is substituted by these three new variables:

Variable: **HARDWARE\_RENDERING**

Default: TRUE

Allowed values: TRUE or FALSE

Description: Turns Hardware rendering On and Off.

If set to False, all HW supporting effects will switch to software mode, becoming slower, but independent of the hardware limitations. The only exception is the DVE real-time mode, which will become non-operative. Just use higher DVE modes if HW is unavailable, as the RT mode would not provide real-time anyway.

**E.g.:** Octane workstations, depending on their configuration and in order to optimize performance, should be set as follows:

OctaneMXE - TRUE

Octane MXI - TRUE

Octane SE - TRUE

FALSE, in case of not having off-screen

**Warning:** If there is not enough hardware resources (e.g.: insufficient texture memory), the value of this variable will be ignored, switching all FXs automatically to software mode.

Variable: **RENDER\_TO\_VIDEO**

Default: TRUE

Allowed values: TRUE or FALSE

Description: Turns On and Off the feedback from the render window to the external video monitor.

Variable: **MONITORS\_DOUBLE\_BUFFER**

Default: FALSE

Allowed values: TRUE or FALSE

Description: Allows use of the Graphics Board double buffer capabilities.

If it's set to FALSE, the monitor windows will redraw asynchronously with the computer monitor. This can cause visibility of partial redraw artifacts in the monitor windows. However, this will NOT affect rendering or performance. On the positive side, full, 24 bit color depth will be used to display images on all supported configurations.

If the variable is set to TRUE, monitors will display in a synchronous mode, drawing first at an invisible back-buffer, and only when completed, will swap it to the front, synchronously with the computer monitor refresh. This guarantees that no partial redraw artifacts will be seen. On the negative side, in some configurations, it forces the system to use lower, 16 bit, color depth to display on monitor windows.

## STARTUP MESSAGES

Upon Startup the software will read the variables found in your .jaleorc file and proceed to check for hardware resources according to those variables. The software will report back to the user, by launching a dedicated warning window, in the event of any problem or warning. Bellow follows a description of those windows and their meaning.

### Shared Resources

- Warning: **"RtVideo limits real-time performance in Reel."**  
Description: If both applications run at the same time, the frame rate cannot be sustained as both applications require complete use of the system resources to guarantee real-time.
- Warning: **"[VTR Manager|RtVideo] must be closed before starting [RtVideo|VTR]"**  
Description: According to the application you try to run first.

### XFS Device

- Warning: **"NOT enough free space in XFS device (n %)."**  
Description: When the XFS disk is nearly full. The number n is the % of free space. The minimum free space allowed (without warning message) is 10%.
- Warning: **"XFS device NOT found, Proceed to system check-up."**  
Description: When XFS is not reachable. Check if our XFS file system is mounted.
- Warning: **"Check configuration files and directory permission."**  
Description: XFS found but not accessible by permissions.



## Hardware Rendering

- Warning:       **"Hardware rendering detected, NOT in use by system setup."**  
Description:   When hardware rendering exists on the graphic board but the setup variable `HARDWARE_RENDERING` is set OFF.
- Warning:       **"Hardware Rendering:** Hardware rendering NOT available, not enough texture memory."  
Description:   When texture memory is not sufficient to support hardware rendering.
- Warning:       **"Hardware Rendering:** Hardware rendering NOT available, image resolution larger than texture memory."  
Description:   When X or Y dimensions of image are higher than 1024, and so it cant be managed by hardware render.

**Note:** In the case of the two circumstances above arising, the first one has priority as it is related to hardware.

## X Resolution

- Warning:       **"Odd number of pixels per line can cause some Real Time effects to perform incorrectly."**  
Description:   When X resolution is an odd number, there is a risk of corruption with some effects. This message warns about it.

## Video

- Warning:       **"Video board present, NOT in use by video setup. Check settings in configuration file ScrToVideo.cfg and hardware setup."**  
Description:   Video is disabled and it is not properly initialized by the system.
- Warning:       **"Video board not present or of unknown type. Check settings in configuration file ScrToVideo.cfg and hardware setup."**  
Description:   Video output is enabled, but it can not be detected. The board could be of a non documented type.
- Warning:       **"X resolution as setup for Jaleo does not coincide with machine configuration. Check the settings in the main Jaleo setup file (.jaleorc) and/or the machine settings (using vcp)."**  
Description:   Self-explanatory.

Warning:       **"Y resolution as setup for Jaleo does not coincide with machine configuration. Please check the settings in the main Jaleo setup file (.jaleorc) and/or the machine settings (using vcp)."**

Description:   Self-explanatory.

Warning:       **"FrameRate as setup for Jaleo does not coincide with machine configuration. Please check the settings in the main Jaleo setup file (.jaleorc) and/or the machine settings (using vcp)."**

Description:   X/Y resolution of graphics or frame rate do not coincide with those defined in machine settings.

# General

## Global editing

Global editing features have been revised to make them more systematical and therefore easier to use, and more powerful at the same time. Firstly, In and Out edit marks can be now switched On and Off independently from each other.

In the three applications: Reel, Gallery and The Loader, now the keyboard shortcuts "i" and "o" switch on and bring each of the edit marks to the monitor position individually. Similarly, the shortcuts "k" and "l", (keys bellow "i" and "o" on the keyboard) remove the In or Out mark individually.

Reel global editing functions have been largely reorganized, corresponding to the new paradigm. Instead of calling the operations "3 points" insert/overwrite or "4 points" insert/overwrite, etc., we just define the corresponding marks (being 3 or 4) in the source (Loader or Gallery) and destination (Reel), and use the "Splice", "Overwrite", or "Lay on Top" function. All of these functions can also be used in the Reel window directly, the paste buffer being the source in this case. We have avoided the usage of the word 'insert', because of its ambiguity, using the word 'Splice' and 'Overwrite' instead.

The reel's global editing folder contains now these functions:

<b>Cut</b>	Cuts segment defined by edit marks and places it into buffer, closing the gap thereby created in the environment. Both edit marks need to be defined for this function to work.
<b>Copy</b>	Copies segment defined by edit marks and place it into buffer. Both edit marks need to be defined for this function to work.
<b>Lift</b>	Cuts segment defined by edit marks and place it into buffer, leaving the gap thereby created in the environment. Both edit marks need to be defined for this function to work.
<b>Insert Space</b>	Inserts a gap of length given by edit marks, in the position of the 'In' edit mark. Both edit marks need to be defined for this function to work.
<b>Splice</b>	Splices segment at active monitor position, moving extra clips right-wards.
<b>Overwrite</b>	This overwrites segment replacing it with the buffer content. If just one edit mark is defined in the Reel, the length of the overwritten segment is that of the segment in buffer. If both marks are present, the buffer content will be time-warped to the length given by the edit marks. If neither mark is present, the segment will be placed in active monitor position.

**Lay on top** This places the buffer content on top of segment defined by edit marks. If just one edit mark is defined in the Reel, it will define the beginning or end of the operation, the other being defined by length of the segment in buffer.

If both marks are present, the buffer content will be time-warped to the length given by the edit marks. If neither mark is present, the segment will be placed in active monitor position.

The functions "**Splice**", "**Overwrite**" and "**Lay on Top**" can be also recalled from Gallery and Loader. However, if only one or no marks are defined in the source clip (in Loader or Gallery), and both edit marks are defined in the Reel, a three point edit will be performed, using the destination segment length instead of time-warping the clip. If you get a time-warped clip even with just three points defined, it means that there was not enough head or tail in the source clip to permit the operation. If time-warp is unsuitable, undo it and try to redefine points. Again if no edit marks are defined in the Reel, the active monitor position will be considered as the in-mark for the operation.

Use the table of examples bellow for guidance:

Source	Reel	Action
In	none	Clip, up to its end is used in the monitor position
In	in	Clip, up to its end is used in the In mark position
In, Out	in	The clip segment will be used
In	in out	Clip from its In point, of length given by edit marks will be used
In out	in out	The clip segment will be time-warped to length given by the edit marks

If the function is used directly from the reel, the source (paste buffer) is considered as always having both In and Out points defined.

## Application Interaction policy

To ensure no performance is lost while displaying a clip, some rules were added to the interaction of three applications, The Reel, the RtVideo and the VTR. These three share a pool of resources that is monitored by the system before launching the application, and are included to protect the user against accidental loss of real-time.

Having the RtVideo open simultaneously with other applications (now it is possible to have the RtVideo open with not only the gallery and loader, but the Reel as well) may result in a loss of real time performance, a dialog box will warn the user about this problem.

To ensure the correct render of Real-time clips to video, every time there is an capture or recording taking place in RtVideo, other applications will be grayed, being enabled only after the operation is finished or cancelled.

Every new scrub or play (as well as any operation in video like, frame forward, etc...) performed in any of the applications will stop others from playing.

When the VTR is active and the user launches the RtVideo, a dialog window will advise the user to close one application before starting the other.

## Video/Audio Corrections

In this new version, the RtVideo corrections have to be recalculated. The correction set in previous versions of Jaleo will not be valid. We have tested multiple configurations and found that the most probable corrections for the Octane system are:

Capture		Playout
Video	1	-8
Audio	0	0

With the inclusion in the Reel of the VTR, it is also necessary to calibrate the Reel's play out. For this it is also necessary to set correction for audio and video.

Reel > Setup > Options

We have found that the audio has a recommended set correction of +8, and video -8. If this correction produces unexpected results in your output (like frizzed frames, audio out of sync, etc...) you should adjust them.

## File naming

File naming in Jaleo, do not allow names that contain any of the following characters:

\ "<>|;?\*\$&()[]{}'~:~%#

Including space between the name (spaces in the beginning and the end are simply ignored).

Backslash character / could produce strange effects depending on the function for which it is used. Text before / is normally considered as directory. It is not allowed as part of a project name.

Transgression of these limitations will cause undesirable effects. Jaleo warns about it in most of cases, but some combinations may not be detected as invalid. The use should be especially careful in these instances.

# The Reel

## Menus Update

Although not everything has changed, the placement of orders and commands is now organized in a more intuitive manner. Some shortcuts have been changed to make them more systematic, some menus were rearranged, and some menu items were dropped due to being redundant or obsolete. Also, a lot of new Reel editing functions have been added.

The general look of reel objects drawing has been improved, making them easier to read and understand.

## VTR Manager

Now, frame accurate recording from reel to tape is possible. Read the dedicated chapter about VTR manager, [See “VTR Manager” on page 73.](#)

## Global editing revised

The global editing functionality has been largely reformed. All varieties of three and four point edits are now possible in an intuitive manner, leaving the user completely free to decide which marks to define, and where. See more about these functions on Global editing, [See “General” on page 19.](#)

## Transition Mode

A new way of transition creation has been added in this release, greatly improving the ease of global editing. Until the 3.0 version, overlap of two clips was required to create a transition. It frequently became cumbersome to convert a cut into a transition, especially if both its sides were already compositions. Now any transition effect or template (group with entries) can be switched into so called transition mode. Now, if you wish to convert a cut into a transition, you need to simply lay the effect over the cut of two adjacent, but non-overlapping clips/stacks, and activate transition mode. The evaluation engine will internally do the necessary timing of both A/B clips sides to gain the overlap, even if in the interface it will still look like a cut with an effect on top of it. As it is not obvious anymore that a clip runs out of head/tail space, a flow monitor functionality has been added to detect such situations.

Effects in transition mode can be handled by global editing functions in a much more intelligent way than zigzag transitions were. Basically, transitions are considered as a part of end (or tail) of each segment. They are not cut in half when lifting or inserting a segment, neither do they count for the segment length. Instead of senselessly splitting a cross-fade into halves, the whole transition effect is lifted if on tail of segment, or left completely there if on head of segment, as the transition belongs to the tail of the previous one.

Transitions are ignored by the "t" shortcut (marks to selection), thus allowing segments to be selected in their original cut boundaries. This way the segment length is given by cut-to-cut distance, as would be expected. The "Tab/Shift-Tab" hotkey (goto next/previous clip) also ignores the transitions, advancing one segment with each stroke.

Transition mode is activated by new menu entries under the clip menu:

- Transition/up: sets the transition mode for an "uphill" transition effect
- Transition/down: sets the transition mode for "downhill" transition effect
- Transition/off: resets the transition mode, making the effect behave as an ordinary multiple entry layers effect.

Transition mode is also set automatically if a way the effect is created suggests this kind of use.



Flow monitor over a transition, See next Next paragraph for comments on Flow Monitor icons.

If a **flip** operation is applied to an effect in transition mode, not only all curves are flipped, but also the direction of transition mode is inverted, effectively swapping the layer order of its two entries in doing so. In this way, it is now possible to invert a transition with one operation.

**Warning:** Transitions can not be nested (used one on top of another), to prevent ambiguities in their interpretation. If you really need to accumulate transitions, you can still use grouping, or use zigzag style transitions.



## Effect creation rules

The introduction of transition mode makes some effect creation rules obsolete. We have replaced them by a more adequate set. When an effect is created these rules apply:

- If nothing is selected: an effect of one second is created in the cursor (last pick) position. The total number of frames per second will depend on the standard in use. You can also define the length explicitly, typing it in the Reel window numeric field, before creating the effect.
- If continuous a strip of adjacent clips is selected (at least 2): an effect in transition mode is created over each cut in the strip.
- If clips in selection form two adjacent stacks with a well-defined cut in-between: an effect in transition mode is created over this cut. **Note:** In both of the last cases the Length of transition created, as well as its alignment (left/Right/Centered) is defined in a new setup window, Reel > Setup > Options. Again, typing the length before the transition creation can override the setup defined length.
- If a stack of multiple clips selected have a non-empty intersection in time (they all share a certain time segment): an effect over this segment is created with a scope line extended to embrace all clips selected.
- If none of the previous rules is applicable: one effect over each selected clip is created, with scope lines embracing each clip.

## Flow Monitor revised

The flow monitor has been improved in both appearance and functionality. Apart from a nicer look, now it has an important functionality of showing warnings about running out of head or tail space when implicitly extending clips by transition mode effects. A red octagon, (see image above), with a number of missing frames will be drawn over all clips running out of material, when the monitor is positioned over a transition effect. Use also the flow monitor to learn how the transition mode is interpreted by the system, as it is not always obvious the first time you use it.

## Strip Mode improved

The strip mode can handle any horizontal scale factor now, not just very large ones as previously. On video clips, frame count will be decimated to fit into any clip length. With audio clips, it is possible now to show whole audio waveform, which will be re-scaled by whatever horizontal scale factor is necessary.

See “Audio” on page 55.

## Edit and Play marks

As we already mentioned in the General features chapter, In and Out marks can now be individually recalled and removed, for both play and edit marks. Also their appearance has been improved, drawing the time codes of their positions, as well as the length of the segment between them. Here is the list of menu entries and hotkeys to place and remove marks:

### Edit Marks

Set In Point	I	places In mark in the monitor position
Set Out Point	o	places Out mark in the monitor position
Remove In Point	k	removes the In mark
Remove Out Point	t	places the marks bounding the selection

### Play Marks

Set In Point	Ctrl + Shift + i
Set Out Point	Ctrl + Shift + o
Remove In Point	Ctrl + Shift + k
Remove Out Point	Ctrl + Shift + l
Marks To Selection	Ctrl + Shift + t

Notice that hotkeys for edit and play marks have been homogenized: for each hotkey for edit mark, you can obtain corresponding play mark hotkey adding the Ctrl + Shift prefix.

## Global marks

This new type of mark has been introduced in the new release, offering the user a possibility to mark important points on his general timeline. Global marks, as well as play and edit marks, can be positioned exactly on the fly now, further improving their usefulness. Any number of global marks can be placed in the reel. They are saved with the environment, preserving them for following sessions. Here is the list of menu orders related to global marks:

### Global Marks >

Mark add	q	adds a global mark in active monitor position
Mark Remove	w	removes selected (last picked) global mark
Mark Remove All		removes all global marks

## Precise mark on the fly positioning

It is possible to place edit, play and global marks precisely on the fly, using the corresponding hotkeys during playback. Jaleo registers the exact time of such events, even if it can not perform the operation immediately because of system saturation during playback. It is also possible to stop the reel playback precisely, using the *Shift* + *Spacebar* hotkey. Even if the playback continues a few frames ahead, after stopping, it will rewind the reel back to the point where the hotkey has been hit. As in previous versions, a simple spacebar hit will simply stop the reel as soon as possible and stay where this happens to be.

## Goto submenu

A new global "Goto" subfolder has been created, moving some functions from Reel>Edit folder and adding others. The hotkeys used follow again the rule about Ctrl + Shift added to edit mark hotkey to get a play-mark one. This is the new folder structure:

### Global>Goto

Previous Clip	Shift + Tab	(also stops at reel marks)
Next Clip	Tab	(also stops at reel marks)
Play Out	Ctrl + Shift + End	
Mark In	Home	
Mark Out	End	

## Numeric positioning

Edit and Play mark placing options and the reel advancing "Tab" option can be driven by numeric values (time codes or frame numbers) instead of active monitor position. The numeric value has to be typed into the reels numeric field (or anywhere in the reel area) just before using the order, to modify its operation. The time-code (or number of frames) can be either absolute (if a number/time-code with no sign is used) or relative to the mark's previous position (if the number/time-code is preceded by the +/- sign). Let's show the functionality by examples:

Type 10:00, then type "I":	Places the In mark into 10:00 position
Type +1:00, then type "o":	Moves the Out Edit mark one second ahead
Type 120, then type "t":	Sets the Out Edit mark 120 frames apart from the In Edit mark
Type -100, then Ctrl + Shift + "i":	Moves the In Play Mark 100 frames back

Also, the Goto Next Clip (Tab hotkey) acts as goto position if preceded by a number:

Type 10:00:00, then press Tab key	Moves the reel background by distance needed to position the active monitor at 10:00:00 time code
Type +100, then press Tab key	Moves the reel to place the monitors 100 frames ahead

Note that, to make this kind of functionality possible, the numeric field now goes gray after its value is used in any way. Otherwise it would also modify all following operations. You need to retype the value again for next use, or reactivate it using Shift + Enter hotkey.

## Timeline origin control

The reel origin time-code can be defined now, typing the desired time-code into the reel's numeric field, and using the Global/Set Origin TC option. [See “VTR Manager” on page 73.](#)

## New scale control

The reel time (horizontal) scale factor is virtually limitless now. Many hours of edition can now be shown in the reel window, instead of the maximum of about a minute in previous versions. A minute of D1 uncompressed was a lot seven years ago, when Jaleo was created...

With regards to vertical scale, apart from three existing scales, two additional scale factors have been introduced: an extra large and an extra small one. The extra large scale allows for clip icons of one quarter of full PAL/NTSC image size, which in combination with improved strip mode even makes editing without using monitors at all possible, if you wish. On the opposite side, the extra small scale allows very large stacks to be shown in the reel window.

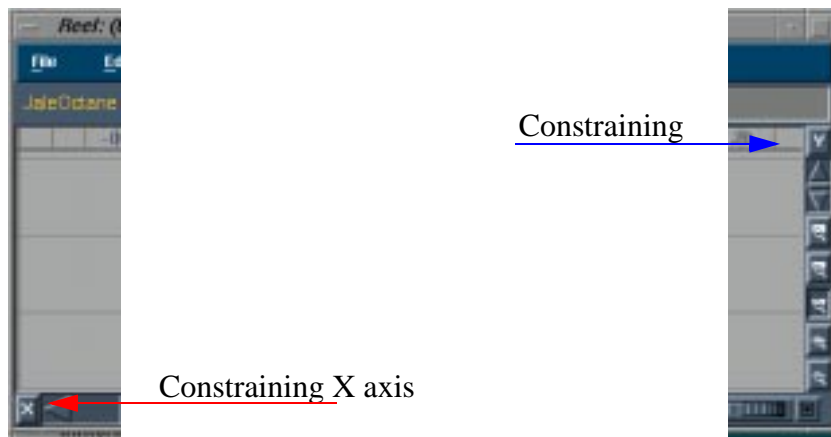
To choose from these five factors, five discreet buttons have replaced the vertical scale thumb wheel, to prevent "overshoots" when re-scaling.



New icons on right side of reel window indicate levels of Y scale [Link to image](#)

## Constraining Reel X and Y

Reel movement can now be constrained on the X and Y axis by simply clicking on the constraining buttons placed in the window. The horizontal constraint will lock the time while crawling up and down a huge compositing stack. Vertical constraint allows you to keep just one, fixed set of tracks visible in the reel window, resembling more traditional interfaces for non-linear editing, specially if combined with the following line lock feature.

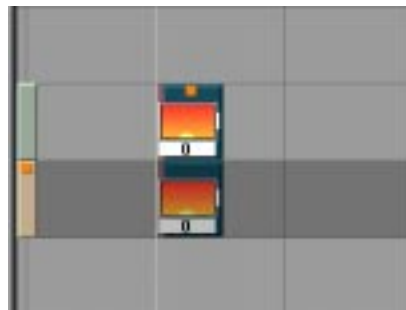


To Lock/Unlock an axis simply click on the mark. The marks will turn red when activated.

## Line locks feature

To facilitate editing tasks, whole reel lines (or layers) can be locked out now, masking them from any editing functions. To lock/unlock a line, click on toggles on the left reel margin. These toggles will appear just in non-empty reel lines.

Once the line is locked, objects from other lines can be moved freely across it, or even be positioned on it. However, they will stay unlocked, unless the whole line is unlocked and locked again.



Global and Local Locks

## Local an global layer insert

Apart from previously available global layer insert/removal, it is possible now to open/remove an space in a evaluation stack, clicking on the desired spot, followed by applying "Insert layer locally" or "Insert layer globally" function, This is how the layer submenu is now organized:

- Insert Layer locally      Shift + Ins
- Remove Layer Locally   Shift + Del
- Insert Layer Globally
- Remove Layer Globally

While inserting a layer locally, opening space in the evaluation stack, the scope lines spanning the spot will be also readjusted automatically, keeping the correct evaluation hierarchy. Note that when creating an effect in the middle of an evaluation stack or ungrouping a group in such a place, layers will automatically be inserted locally, if the auto expand function is activated.

## Improved auto expand

The usefulness of the "**auto expand**" has been vastly increased by making it local to stacks where the ungrouping occurs instead of cutting through the whole Reel. As mentioned in the previous section, it also allows expansion of the stack in order to create room for the newly created effects.

## Improved auto-snap

The **auto-snap** on this version is way more powerful and easier to use than in previous versions. Apart from snapping, it will try to prevent any overlaps in the reel, moving the object sideways even if the movement necessary to solve the overlap is larger than the one defined as auto-snap range. This property is useful for placing objects side by side: Move one object close to the other in such way that they overlap a bit. They will align side by side. If there is not enough room on the sides of the overlapped clip, it will try to place objects some layers higher, to solve the situation. Objects now snap also vertically, aligning to upper or lower neighbors, or to scope lines, making it easier to keep stacks aligned. However, sometimes, excessive intelligence of a feature can cause effects not wished by the user. Just use Undo if that happens... The range of action of auto-snap can be defined by the variable setup MAGET\_MAX in the .jaleorc file. Remember that the auto-snap feature has to be activated by a toggle in the reel setup menus.

## Refined undo

The Reel undo behavior has been refined, undoing the user action in more intuitive steps. One user action corresponds now to one hit of the undo hotkey. Edit marks, positions and states are undoable now, unlike in the previous Jaleo releases.

## Clip Split option

After applying the split function, both created parts are deselected now to prevent the user from making mistakes.

## Clip Join option

Allows multiple joins at once now. On a multiple selection, all possible joins will be performed. Remember that joining neighboring clips is possible only if they actually represent split continuation of the same material sequence.

## Dummy clips and template groups

Dummy clips can now be created from a menu. Dummies with indices from zero to six can be created directly; other indices can be obtained changing the index of an existing dummy. To create dummies with an entry index greater than 6, first create any dummy, then type the desired number and use the 'Change entry index' in the Clip menu options.



New Dummies window

Dummy behavior is similar to that found in previous version, serving as an open link (space holder) within template groups. These links are filled later on in the process by group entries and are a great tool to create a library of effects.

## Group navigation

A richer and more accurate set of options is offered to users when navigating out, if a user makes any relevant changes inside the group, changing its length or character. These options allow the user to either go back or readjust the output group to the changes. The warning and options windows are self-explanatory now. Each message will be accompanied by a few options to deal with the situation.

## EDL Post-process function

Converts selected clips of an imported EDL environment from traditional zigzag transition style into new one line style using effects in transition mode. It can be found in the EDL menu folder. Read chapter about EDL for more information. [See "EDL" on page 49.](#)

## DMC (Dynamic Motion Control)

Pressing the Left-click in the mouse and a combination of Alt + Shift (Shuttle) or Alt + Ctrl (Jog) the DMC control is displayed in the reel as a bar on top of the monitor position. This bar will perform the same utility as the Jog and Shuttle found on most video devices, allowing for a quick displacement of the monitor across the Reel in a more controlled manner.



Command	Max speed	Min speed	Shortcut
Jog	+3.0	-3.0	Alt + Ctrl + Left-click
Shuttle	+42.0	-42.0	Alt + Shift + Left-click

## The Options setup window

To allow user setup of certain new parameters, a setup window has been created. Here is the list of values to setup:

**Mark Offset:** Allows an "ergonomic" delay correction to be set, in frames, for placing the marks on the fly, hitting corresponding hotkeys during a reel playback. If the on-the-fly placed marks do not end up where you feel like they should, increase or decrease this value to compensate for both human and hardware delays in the path from you to the computer.

### Transition

**Duration:** Default duration of effects created in transition mode.

**Align:** Alignment of effects in transition mode. It can be chosen as left, right or centered to the cut on which the transition has been created.



## Synch

**Image:** number of frames to delay/forward video when recording from reel to tape using the VTR Manager. This value is different from a similar one offered in the RTvideo, and needs to be calibrated independently. A good value to start with is -8, and it can vary slightly depending on your output video path.

**Sound:** number of frames to delay/forward audio, **relative** to video. Note the difference compared to RTvideo, where this value is absolute, independent from offset to video. It is preferable to start calibrating the video first, and then, with fixed video offset calibrate the audio one. A good value to start with is +8.

**Note:** Sound to Image relative offset is important also for sync of audio during common reel playback to Video monitor. If the value is not properly set, the audio will be off synch.

## Image import enhancements

As before, when an image is dragged and dropped over the reel window, Jaleo will automatically detect its format and whether the file forms a part of a numbered sequence. However, using the new "Remote sequence" option, it is possible to create just a clip object pointing directly to original files, instead of importing them into Jaleo dedicated storage.

However, file permissions for reading the dropped image files are necessary to access them.

When a remote sequence clip is removed later in the Loader, only the links will be removed; the original images will be left intact, contrarily to normally imported material. Also due to the nature of Remote linking, all the image attributes like image size, color space, bit depth and alpha channel presence are preserved, making it unnecessary to commit decisions about these when importing.

When importing images fully to the Jaleo Xfs storage, it is now possible to import images with Alpha (mask) channel into Xfs YUV 4:2:2, real-time capable format. However, due to lack of support of the alpha channel in the Jaleo Xfs YUV format, two separate clips will be created and placed one on top of the other in the reel window: one containing the image, and the another containing the Alpha channel converted to a B&W image. Both clips are actually stored in the real-time capable YUV 4:2:2 format, allowing, for example, for real-time compositing and backup operations.

## QuickTime movie format support

Import and export of QuickTime movie files is now supported. However, these files typically can not be played directly in real time. If RT playback is needed, re-render these files into Jaleo Xfs format.

A large number of QuickTime sub-formats ("codecs") exist, however, different systems support different sets of them. In consequence, it can happen that Jaleo will not understand a QuickTime file created by other application, and vice versa. The QuickTime formats supported by IRIX OS, and, therefore, by Jaleo, are: QT Uncompressed, QT Cinepack, QT JPEG, QT Video and QT Animation.

Jaleo renders audio into a separate audio file. However, it is possible to merge the sound into all supported audio files in a post-process, activated by a toggle "audio in movie" in the rendering window. Also there is no Mask or alpha channel in QuickTime movies.

In total, the render to movie options menu now offers now these choices:

- SGI Uncompressed
- SGI MVC
- SGI RLE
- SGI JPEG
- QT Uncompressed
- QT Cinepack
- QT JPEG (this format seems to work on SGI applications only)
- QT Video
- QT Animation

## Cineon file format support

Import of Cineon 10 bit logarithmic files is now possible. However, if imported into common 8 bit file formats, the extra bit depth will be lost. There are two ways to import these files without losing the extra information:

Use the "Remote sequence" mode when importing the images. As images are just symbolically linked, no bit depth will be lost in the operation.

Import the sequence into RGB format with Alpha channel, either to Jaleo Xfs storage or into some of the Alpha supporting image formats like Targa. Jaleo will use a trick here: it will store the extra six bits in the Alpha channel, to use them later in the **CineCor** LUT (lookup table) effect.

Read more about the way Cineon files are handled in the **FXs** chapter, [See "CineCor FX" on page 38](#)

## Interactive trimming enhancements

This version of the Jaleo Reel includes new interactive mouse trimming modes. A combination of keyboard and mouse actions creates the following trimmings.

Common trim: Right-click + Left-click + drag

Even if the feature is not new, there is a new way of using it: if two adjacent clips are selected, and this button combination is used in the boundary, it is possible to shift the cut point to the sides, trimming one clip while extending the other or vice versa. In previous versions, this would cause a 1 frame overlap of the clips, rendering it useless as an editing feature.

Shift trim: Right-click + Left-click + drag

Using the same button combination as common trim, if performed in the middle of the clip instead of on its extremes, the clip content will be interactively shifted instead of trimming the clip's head or tail. The feature is especially useful to tweak clips already forming part of edition or evaluation stack, preserving both length and position of the object.

Curve extending trim: Right-click + Alt + Left-click + drag

When used on the extreme of an effect or time-warping group, the parameter curves will be extended instead of time-scaled to size. Otherwise, this acts as common trim.

Push trim: Right-click + Ctrl + Left-click + drag

This acts like a common trim on the extremes of a clip, but drags or pushes away all objects in the direction of the trim, performing an operation that only the trimming editor window could do before. Also, if the active monitor was placed on the trimming position, it will follow the mouse drag, giving live feedback about changing trim point.

## Feedback to monitor

With this feature activated, any image clip selected will send its active frame to the active monitor. If the active frame is dragged using the right mouse button, the monitor will be also be fed with images. This feature was designed to give better visual feedback especially for the client sitting behind you: Any clip you touch will send a sample image to the live screen. Resolution and destination of the sample image actually depends on the active monitor settings. If it is set for full res. and live video, samples will be also a full res and live video mode.

One side effect is that the active monitor will frequently show an image different from the one it normally should show (the one given by its position). You can make it show the right image again by moving it, or just clicking anywhere in reel background.

Effects and groups also send a sample image to the monitor when selected. However, no images are sent during interactive drag of active frame, as that could become unacceptably slow because of image rendering involved.



Activate this feature by toggle situated at Setup > Reel > Selection to monitor.

## Rendering

When a selective render of multiple segments is launched, Jaleo does not open a new progress window for each segment anymore. The same window is reused now for all segments with a progress meter expressing absolute progress on the whole set of jobs. An elapsed/remaining time meter has been added, even if the estimated remaining time is very approximate, based only on average per frame time of frames already done.

Selective render, when launched again with the same render name, does not recycle individual segments name/indices indiscriminately (name 001, name 002...) anymore, overwriting all previously rendered segment media. A segment name will be reused only if it is not present in the reel anymore, thus protecting this way the rest of the previous selective renders still in use. Now you can, for example, launch a selective render of the whole environment producing twenty segments, then delete some of them, modify the environment, and re-launch the render of the whole environment with the same render name. Render will recycle (and therefore, overwrite the media) only the names of the segments already deleted, allowing you to "patch" your partial renders without being worried about naming.

In addition, you can use this feature as an automatic render name generator to do simple individual renders.

**Warning:** Names are not checked against previous versions of the environment, saved on disk. You should still consider selective renders as something temporary.

# FX

An entirely new paradigm for transition creation has being added, greatly improving Jaleo editing functionality. Read the Reel chapter, Transition mode for more information.

New effects have been added to enhance the Jaleo's toolbox. Also, some new parameters or the enhancement of old ones in order to perform new functions can be found in this version.

Also, we have tried to move to backward compatibility folders all effects that should not be needed anymore due to their being obsolete or redundant. All effects from previous releases are still supported, and should work properly. However, if you feel that some unique functionality has been mistakenly made obsolete, please contact the Jaleo team to help us in making further decisions.

To prevent banding problems, pixel rounding has been improved in some processes, like blurs and color correctors.

## New FXs and Parameters

### Sub-pixel grows and shrinks

The grow and shrink parameters are now capable of sub-pixel graduation, in all effects that contain such parameters.

### Obey mask

The Obey mask option (follow mask) constrains the effect to the mask of the source clip. This parameter has been added to most image correcting effects, like: **Gaussian blur**, **Box blur**, **Sharpen**, **Solarization**, **Posterization**, **Lookup**, **Mosaic** and **Six vector CC**.

The default state for Obey Mask is zero (off), as it costs rendering time and is not needed in most cases.

The obey mask parameter is not present in RT Color Correctors based on YUV image format, because Jaleo YUV doesn't contain embedded Alpha channel.

<b>Obey mask</b>	Use mask area only for applying FX
	Boolean
	on/off

### New bump

Two New parameters have been added to the new bump FXs, under the transparency folder. These are the two new parameters and their usage.

<b>Aliasing:</b>	Multisampling antialiasing algorithm, (Int) Antialiasing level from 0 to 7 Rendering time will rise with higher antialiasing, the algorithm used is very similar to the one found in the DVE FX.
<b>Repeat:</b>	The type of mapping on the reflection/refraction (Boolean) 0 = Planar projection (the usual behavior in previous releases) 1 = Spherical projection

## Noise patters

This is a filtered noise generator capable of creating both Noise and Plasma patterns. The effect does not have a scope line, as it is purely a pattern generator, not an image processing effect. Compared to previous Noise effect, it has two new parameters:

<b>Mode</b>	switches the generator as Noise (value 0) or Plasma (value 1)
<b>Color</b>	switches the generator as B&W pattern (value 0) or as Color pattern (value 1). Color pattern is created just storing a different B&W pattern in each of Red, Green and Blue image components.

These Noise patterns are supposed to replace the noise and plasma patterns. However, some parameters have been removed for simplicity, namely, Amplitude, Gamma, and Bright. Use a Color corrector effect on top of this effect to correct gamma, black and white levels.

The original Noise and Plasma effects are now in the backward compatibility folder.

## CineCor FX

Jaleo can now import 10 bit, 3 channel (RGB), Cineon image files. Cineon file specification theoretically covers a sheer number of image layouts, packing, bit depths and channel numbers, but it looks as though the one mentioned is the one used normally.

The images are imported into Jaleo using standard *drag and drop* into the Reel time-line. A window prompt will show up when image(s) are dropped, asking about created clip name, storage format and media. Use the either newly featured “Remote copy” feature to create just symbolic links to images (without copying actual image data), or choose any RGB format here, an XFS-RGB for example. If you choose the “Remote copy” option, no storage format needs to be chosen, as the original files will be accessed directly when the clip is evaluated.

As the Jaleo data path is exclusively 8 bits per channel, we have introduced a trick to store a 10-bit image: the 8 most significant bits of each channel are passed through in each channel. The remaining, truncated 2 bits from each of the three channels, are packed into a 6-bit value, and this is passed through as the Alpha channel of the resulting image.

The resulting image, so, is a valid 8-bit RGB image, with kind of random looking data in the alpha channel, which actually contains the extra bit depth information. As a consequence, you have to activate the "Mate" toggle when importing to Jaleo storage, to preserve this extra information.

The Jaleo effect set will be able to process these images, as they are valid 8 bit images. Similarly loader or gallery tools will be able to show them. However, normally the extra bits would be ignored.

To take advantage of the extra bits stored in the Key channel of the imported Cineon files, a new effect is created. Named "**CineCor**", it is located in the plug-in>ImageTricks folder. The effect acts as "LUT" (lookup table), mapping the 10-bit logarithmic scale into linear 8-bit range. The effect is supposed to be used as the FIRST effect on the top of any Cineon imagery imported, as it is the only effect capable of extracting and using the extra six (2 a channel) bits stored in the Key channel.

The parameters set of the **CineCor** FX is relatively similar to the ColorCorrect effect, even if units have changed, to match the usual LUT parameters interpretation better: black shift is substituted by black LEVEL, and gain is substituted by white level. Like in the ColorCorrect FX, each of the three levels can be offset individually, on a per channel basis, or globally, for the three channels.

Here is the complete list of parameters:

White

Gamma

Black

White-RGB/Red

White-RGB/Green

White-RGB/Blue

Gamma-RGB/Red

Gamma-RGB/Green

Gamma-RGB/Blue

Black-RGB/Red

Black-RGB/Green

Black-RGB/Blue

The Black and White levels are defined as a percentage of the total range (100% corresponds to level 1023 of the Cineon file), while the Gamma are in "natural" units, where the value of "1" implies no change.

There is a simple way to set reasonable values for a given image file:

1. Put a CineCor on the top of the clip just created.
2. Put a monitor slider to show the clip (not the corrected result!)  
Open the Time editor, and then the Color Editor in it
3. In the time editor, select the "Black-RGB" folder  
Use the "Pick Color" tool, and pick in the monitor in a point of image which is supposed to be black
4. Select the "White-RGB" folder  
Use again the "Pick Color" tool; pick a point supposed to be white.

Now you can move the monitor cursor up, to watch the result, and set the gamma as your wish. The default value may be OK already. Its preferable to leave the monitor on Low resolution while picking, to get better average color values.

We preferred to use the 0%-100% scale to the 0-1023 scale used normally for Cineon LUTs, making the range compatible with the Jaleo color tool. Just divide such imported black/white level values by 10.23, to convert them to the percentage scale.

The so-called "Knee" values are not included. Their main function is to "compress" the extra range over white level for special purposes like spectacular highlight glint effect. However, to access them, you can simply use another instance of the same material with its **CineCor** FX, and using the white level of the original correction as the black level of this one, obtaining a separate image containing just highlights reaching beyoond the range in normally corrected image. You can, for example, blur this image containing only highlights, and ADD the result to the corrected original.

## DVE

The former DVE-GL functionality has been extended, in order to replace all these 2D/3D/GL/RT effects with only one, unified The DVE. Motion tracking can use this effect now for both stabilizing and tracking tasks. Five rendering levels are available, from real-time capable, simplified mode up to thorough software based mode capable of solving multiple transparencies of any complexity.

Colored directional, spot and omni lights are supported now. The 3D editor has been improved, providing adequate manipulators for these light objects. Pre-multiplied images are supported now by the DVE, as it is possible to fade individual tracks in and out using the KeyIn parameter.



## Mixing resolutions

As in previous versions, the DVE is the only Jaleo effect capable of combining images of different resolutions. The resulting image size will be the default one, defined in the setup file. All other effects will first clamp/pad the images to default size, before processing them.

However, one new general rule for dealing with mixed resolutions have been introduced in this release: If all entries of any effect are of the same size, even if not the one from .jaleorc, the effect will use this “agreed” size for processing and generate a result of the same size. This can be very useful, for example, to color correct an extra size image and merge it with an external key of the same extra size, before using it as a panning background in your DVE.

A side effect of this rule is that any effect with one entry only will produce a result of the same size because one entry only is always considered as being the same size as itself. Consequently, if you need to use a DVE to pan over an extra large image, you will need to use any background clip to force the result into setup size, even if this background will be never visible. Normally the background layer could be just switched off using the NoBgr parameter.

However, if you build such a case of DVE usage in a previous Jaleo version and import it to the new release, it will be interpreted differently. For such cases, there is a variable in .jaleorc enforcing usage of old size rules to guarantee backward compatibility: [See “SETUP VARIABLES” on page 13.](#)



DVE new window

## New parameters

The former 'camera' folder has been renamed to 'options'. It now contains these parameters:

**Wide**                      Angle of camera perspective.

	(Floating)
<b>AntAls</b>	Antialiasing. (Floating) Antialiasing level from 0 to 7 The higher the better (and slower)
<b>Backgr</b>	Background layer (States) 0 = Enable 1 = Disable If the DVE has one entry only, it will be considered a foreground automatically.
<b>MBEnable</b>	Motion Blur (Range) 0 = No Mblur 1 = Full Motion blur Intermediate values are also possible, graduating the effect from none to full motion blur.
<b>FlickFilt</b>	Anti Flickering (States) 0 = Disable 1 = Enable
<b>RenderMd</b>	Render modes (States from 0 to 4)

Different modes, or levels of rendering. Valid values for this parameter are:

0: Real Time mode. The functionality of the effect in this mode is limited to those of the former DVE-Fast real time effect. Lights are ignored, as are alpha channels. Just one background and one foreground layer is visible. However, the effect is still suitable for building DVE-ish transitions or deformations.

1: Normal hardware render. The default rendering mode

2: Hardware render with correct Alpha output. Same as previous mode, but fixing a bug of incorrect output key in zones of accumulated transparencies. As the output key is mostly unused and it takes about 20% extra rendering time, we decided to make it optional.

3: Normal software render. If hardware rendering is not available, modes 1 and 2 will automatically switch to this mode.

4: Software with thoroughly sorted depths, solving complex transparencies. All previous modes can work incorrectly when drawing multiple accumulated transparencies in some cases like intersecting polygons or self-intersections of deformed, semitransparent objects. This problem is inherent to usage of z-buffer. In mode four, full sort of objects for each pixel is performed, instead of just recording the closest hit, rendering slower but with guaranteed results.

## Lights

The lighting options of the DVE have been largely extended, now including point, spot, and Omni directional lights, with custom definable color. The corresponding parameter folder defines each light. Any number of lights can be defined. However, a maximum of eight can be rendered in Hardware mode. Each light's folder contains this set of parameters:

<b>Position</b>	Base of Light position (X,Y,Z)
<b>Target</b>	Light target position (X,Y,Z)
<b>Color</b>	Light Color (R,G,B)

Range from 0 to 100, to fit into the color wheel and function as a color filter in the light. To introduce higher values (more intensive light) use the *intensity* parameter.

**Intensity**

Light intensity  
(Floating)

**Points**

Type of Light, by the number of points defining that light.  
(States)

0 = Directional light.

The light source is in infinite distance, producing light parallel to direction from “position” to “target”. Actual absolute positions of defining points do not matter. What matters is the vector from one to another. The light does not decay with distance in this mode.

1 = Omni directional light.

Defined by its position only. The destination point defines a distance of unit light intensity in the case of a decay parameter is being set (larger than zero, meaning no decay).

2 = Spot light

Defined by position and target point. A cone of light is sent in the direction of a target. The target point defines a distance of unit light intensity in the case of a decay parameter being set (larger than zero, meaning no decay).

The following two parameters are used only in the Spot light mode, otherwise they are ignored.

**Spread**

Angle of light spread.  
(float)  
aperture angle of light (0 – 90°)

**Fall off**

Penumbra.  
(float)  
The higher the number, the faster the light decay from center of the light’s spot (or cone axis)

The following parameter is used only in the Spot and Omni light mode, otherwise is ignored.

**Decay**

The grade of Light decay over distance from the light source. Even if the real light decays by the square of the distance from source, such decay is frequently uncomfortably fast. In the 3D world, this physical law is frequently cheated on, slowing the decay to linear or none at all.

(float)

0 = no decay

1 = linear decay over distance

2 = quadratic decay (follow laws of physics)

In-between values are also valid. E.g. Value of 1.5 = decays faster than linear but slower than quadratic.

## Matte Opacity

To control the opacity of individual layers, new parameter have been added for each track:

**Keyin**

opacity control of the layer

Float, range 0% -100%

0 Completely transparent

100 Completely opaque

## Pre-multiplied materials

This variable allows correct handling of pre-multiplied material, taking care of the "dark edge" found in most 3D-render material.

**C-black**

This marks the image track as pre-multiplied to process it correctly.

0 off - track handled as not pre-multiplied

1 on – track handled as pre-multiplied

## Track hierarchy

All of the DVE multi-layer features are accessed through a hierarchical menu system. At the top of the hierarchy is the Scene transform (added for this release) followed by Global. Scene and Global transforms are shared by all the tracks. Then, each track has its individual transform, connected on the bottom of the Global.



When a new track is added to the DVE, this will be placed in the same level in hierarchy as all the other layers, right under the Global axis. The lights are independent from this hierarchy, as they are locked to their own position in the 3D space.

## Backward compatibility

Fast DVE has been moved to the backward compatibility folder. It is preferable to use general DVE in the real time mode, as this allows you to seamlessly switch into more powerful modes when the RT mode becomes insufficient, because of lack of Alpha support, for example.

## Motion tracking

The motion tracking editor has been revised. The active frame slider has been added to unify the features of all editors. Panning and zooming are performed in manner consistent with other image viewers.

## Tracking precision

If more than just the minimum necessary trackers are defined, Jaleo will take advantage of it and increase the precision of the tracking. Even if, for example, just two trackers are needed to stabilize a rotation, the results can be considerably smoother if more, preferably distant points are tracked.

## Multiple apply modes

In previous versions, different effects had to be used to get either tracking or stabilizing. In Jaleo 3.0, there is just one unified DVE. To get different tracking functions you can now choose the means of application when applying the tracking results: Move, Stabilize and Smooth modes are available.



The destination folder to apply tracking has to be selected in the time-editor before using any of these apply orders.

- Apply Move:**  
Use for sticking images on moving objects.  
Typically you will select the "Global" transform when applying "Move", to be able to use the local "Track" transform to position the object into its right place.
- Apply Stabilize:**  
Use to eliminate the movement of the object (or full image).  
Curves compensating the tracker movement instead of curves following the movement will be created in this mode.  
Typically you will use a local, "Track" transform when applying stabilize to be able to use the "Global" transform for general positioning of the stabilized image.
- Apply Smooth:**  
Similar to Stabilize, but it doesn't eliminate the movement, it just makes it smoother and more continuous, ala steady-cam. An Important advantage compared to stabilize is that it doesn't need extremely wide margin areas, a slight "zoom in" can solve the black margin problem. Typically you want to apply smooth to a track (local1), to keep the global transformation for zooming in or posterior corrections.

When using any of the three methods on the DVE, the tracking info will be applied in a way that the active frame of the effect will be kept in the origin position, moving (scaling, rotating) relatively to this frame. Choose this active frame before applying, to position your object in the right reference place, using the other transformation folders as described.

## Trackers display

Individual trackers can be hidden and revealed now, instead of selecting/deselecting them in the tracker list. Hidden trackers are not processed when the tracking is launched, allowing the user to keep good trackers while experimenting with problematic ones.





To Hide a tracker simply select it, either individually or as a group by rubber band and select Tracker > Hide. The same goes for revealing a hidden tracker.

## Color Correction

**B&W** and **Negative** effects now recall just a preset of **ColCor** FX, in order to streamline the color correction tack in Jaleo using just one powerful corrector instead of a stack of weak ones. The original B&W and Negative effects have been moved to the backward compatibility folder.

Also "Obey Mask" and "Dither" have been added to **SixVec** effect, to make its parameter set more similar to that of **ColCor** FX

## EDL

Even if the new "transition mode" allows linear style editions to be created, the EDLs are still imported in traditional, zig-zag mode. To convert such zigzag editing to the new transition mode, select clips to post-process, and use the EDL>Post-prosess option. However, in certain situations the conversion into the linear style is not possible. In parts of the edition where conversion is not possible, nothing will happen, and the clips will be left as they were.

# Monitor

## New resizing mechanism

The entire monitor resizing, zooming and panning mechanism have been redone, mainly to unify the interface across all Jaleo image viewers, and allow operation on high image resolutions like film and HDTV.

As previously, size presets to full, half and quarter size are available, but the monitor window size is not restricted to just these sizes anymore. The window can be resized to any size now, from icon size to full screen. The monitor frame is now considered just as a view port to watch and move around the image of size independent from the size of view port itself.

Images larger than the computer screen can be handled comfortably now. 100% of the screen area can be used for monitor in these cases, eliminating even the window border when occupying the full screen. The image pan and zoom is much swifter now, allowing smooth pans for images of any size.

The time code can now be burned over the image sent to live video, without compromising the real time playback operation.

## Single frames

The single frame window is now derived from the monitor window, inheriting from monitors most of the interface and capabilities, like image zooming/panning and split image-alpha view mode. Only features that didn't make sense in the context of single frame, like switching resolutions, were dropped. Consequently, almost all the following about monitors is also applicable to single frame/filed windows.

## Resizing the monitor window

Apart from preset menu commands, you can resize the window dragging its borders or corners, just as any IRIX desktop window. If you are using resolution higher than screen size, the preset command for full size will automatically situate the window on the desktop in such way that the useful monitor drawing area will cover 100% of the system screen, situating the window borders just outside. As the window decoration allowing the window to be iconized or killed become inaccessible in such cases, the commands "Quit" and "Iconize" have been added in the monitor pull-down menu, accessible by clicking the right mouse button anywhere over the monitor area.

## Clip display

In order to control the clip resolution and position in the window, new shortcuts have been added.

These controls are uniform throughout the software in all image-displaying tools. Use F5 to F8 hotkeys to zoom the image. Use Ctrl + Alt + Left-click to drag the image around. In the case of the monitor tool, dragging the image out of the window is blocked, as there is nothing useful to see outside the image area. On the other hand, it is allowed in tools like Paint or Morph, where control points or strokes can be situated there.

#### Image zooming shortcuts

F6	Zoom in
F7	Zoom out
F8	Reset to the default scale
F9	Center
Alt + Ctrl + Left-click	Pan

Zoom factors smaller than one are now possible, but drawing images in reduced size is relatively slow and therefore not recommended. Preferably, switch to preview size instead of drawing full size reduced.

## Window options

As in previous versions, monitor menus can be accessed by clicking on the right mouse button anywhere over the monitor area. This is the list of menu options now available:

Resolution>	low	Alt+L	
	High	Alt+H	
	Dynamic	Alt+D	No changes here.
Freeze>	Field		
	Frame		No changes here.
Zoom>			
	Image Up	f6	
	Image Down	f7	
	Image Reset	f8	
			<i>(back to default, this default is set/changed using the below default options)</i>
	Image Center	f9	
	Default to 1/1	Alt+1	

	1/1 sets the window size and image to actual working resolution. If the working resolution is higher than the resolution of system screen, all the screen area available will be used.
Default 1/2	Alt+2 1/2 sets the window size and image to half of the actual working resolution. This is the default when opening a new monitor.
Default 1/4	Alt+4 1/4 the same, to one quarter.

Notice that the last of these presets used will be used as a reference if the “Zoom image reset” command is applied.

**Show Key**      Alt+K  
The split screen show image/key feature can be used also when sending the image to live output. Just drag the mouse around the window, even if the actual image is shown on the external monitor.

**Show Audio Wave**

**Live Video**      Alt+V

**Time Code**      Alt+T  
If switched on, the reel time code is displayed over the monitor window. In Live mode, the time code will also be burned on the image sent to the external monitor.

**Frame rate**      Alt+R

**Follow editor**      Alt+I  
The monitor to time editor position lock is bi-directional now. If you move the monitor, the time editor will follow to show the same frame. If the time editor active frame is changed, the monitor bar will follow, in the limits of the reel window.

**Active Monitor**      Alt+A

**Center Monitor** New

The monitor mark will be centered and locked in the middle of the reel. The monitor's bar height is considered infinite in such a mode, spanning (and evaluating) all layers existing in the reel, even if above or below the visible reel area. Only one monitor at a time can be set in this mode.

NTSC Aspect RatAlt+N

Area & Grid Alt+G

Single>

Frame Alt+F

Fields 1<sup>st</sup> Alt+S

Field 2<sup>nd</sup> Alt+C (**new**, just for completeness)

This produces a single, full resolution image in the monitor's current position. A new window with this image will be created. This window is very similar to the monitor itself in its functionality. However, it is completely standalone from the reel and monitors, serving just as a reference.

Single Out

Sends a single frame directly to live video output

Save Image (Feature transferred from former single frame window) Saves a single image, in Vista image format.

Preset>

Hi+Live+Field Alt+Z

Hi+Live+Frame Alt+X

Low+Screen+1/2 Alt+Q (**new**)

Just shortcuts for some commonly used setting combinations.

Iconize Alt+f9 (**new**)

Quit Crtl+Q (**new**)

Just ordinary window iconize and close commands. Useful if the window borders are out of screen area, when displaying extra large images.

## Single frame window menus

As explained before, Single frame menus are just a subset of monitor menus. The only extra command found in a single frame is the self-explanatory “Send to live” command.

# Audio

The audio playback in Jaleo has been upgraded and is more functional in the Reel, enhancing the scrubbing and the way the audio files are captured and displayed. The monitor will evaluate only the audio tracks found in the monitor bar range. If the monitor is in Center mode all audio tracks will be played.

## Configuration

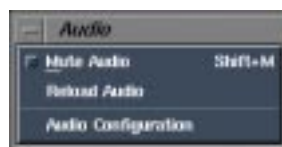
The configuration window can now handle custom rates for the audio, and this file can be used as the default of every new Reel. In the case of the file not being found (in `~/JALEO-ENV/etc/audio/default.acf`), the default will be set to 48000.

In the case of entering a value smaller then 8000 or bigger then 48000, values that are not allowed, the default will be used, again at 48000



## Reloading audio clips

There is a new entry in the **Setup > audio** menu, named **'Reload audio'**. This function will reload the selected audio clips from its source file, useful when the content of the file or its length are changed using and external sound editor. The application will crop or expand the clip to the new size of the source.



## Combing Audio in clips

Audio and Image clips can now be combined with in a single clip with a single keystroke. These combinations are displayed as a single clip with two different color bands in it, the upper color representing images and the lower color, the audio.



To combine two clips, simply select the two clips and select **Clip >audio** combine or use the shortcut (**Alt + Q**), although some rules do apply

- Both clips should have the same duration
- One clip must have only audio and the other only images

When these rules are in conflict the command will not work, and will be cancelled. Also the option to open the sound in the sound editor is grayed when the clips are combined.



## Audio Sync Display

The New Flow monitor, will calculate the loss of sync in TC from the grouped Audio and Video clips, this number reflects the relative difference in sync of both clips, not the actual differences from the original TC.

A<V:25 audio start 25 frames before video

V<A:8video starts 8 frames before audio



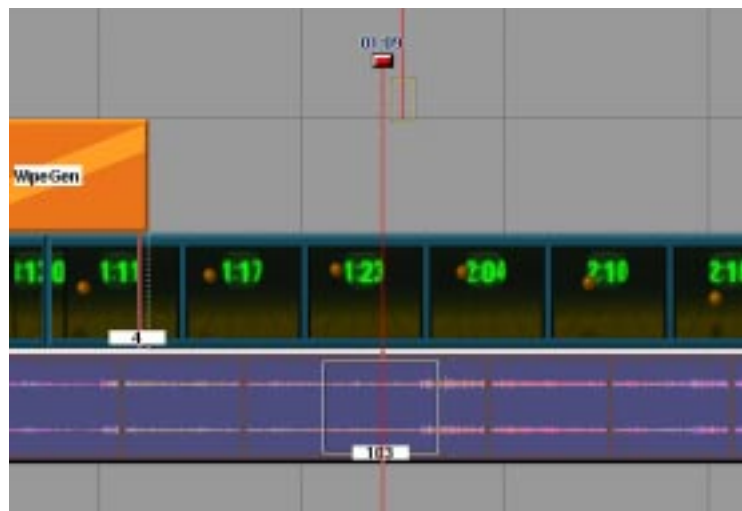
Delayed Audio



Trimming and global operations work on this combined clip as in a video clip, but both are trimmed at the same time. To perform changes in the audio or video only, first you must break up the combined clip.

## Smooth scrubbing

The scrubbing on audio files in the reel has been enhanced to provide an accurate display and feedback of the audio file. The new audio strip mode will display a continuous waveform of the clip, representing the audio signal in sync with the actual position in the reel. When the end of that audio clip is read, the lines turn into straight red lines.

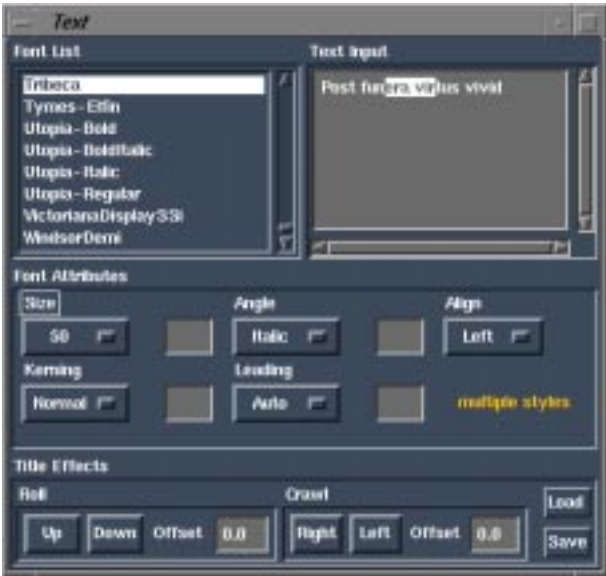


# Title

New functionalities have been added to this version of Title. Below is list of the all changes in parameters or functions added.

## Multiple styles

A Text typed in the Title has, by default, certain attributes; those attributes are kept by the application, and the "title" window is now able to display the attributes of the selected text or the text where the cursor is positioned. If the selected text includes more than one style, the window will display, at the bottom of the "Font Attributes" frame, the message: "multiple styles".



**Note:** While loading formatted text files that include fonts not found under the system, title will use the font used last or the default one.

## Reveal

A reveal of the text can be done by gradually increasing to 100% the values of this parameter, found in the Time editor. From left to right the text will reveal one letter at the time. The correct amount in percentage to letter will vary with the length of the text.

Reveal	Int	
	0 -100	
	0	No display of text
	100	Full display of text

## Title effects

When applying Roll/Crawl , the set default offset for both is now 0.0, This will keep the text centered when applying the effects.

# Time Editor

## Menu changes

Some menu items were added. The behavior of others have changed slightly. Here is the list of changes:

Edit >    SelectAll   Select all parameters. Newly added function.  
Curve >   Fit  
Time >    Flip / Flop

**Note:** All the three functions now perform just on selected curves. Previously, they performed on all visible curves.

Plug-in access command has been moved to reel window, to provide more direct access to individual editors.

## Folders state

Folders are kept open now if you switch between editing different effects. Previously, the folders always appeared closed when coming back to edit an effect. The folder state is even maintained between different sessions now, being saved with metadata files..

## Paste Buffer

Cut and copy commands can store any selection of curves in the "Paste Buffer" now, instead of only one as previously. Similarly the paste command can now paste multiple selected curves.

For example, you can copy whole folders from one instance of a DVE to another, for example. Note that if a folder is selected, all curves in that folder will be selected too, even if the folder is closed. To copy a whole folder, just select it and use copy command, then select the destination folder and use paste.

If the number of curves in the "Paste buffer" is not equal to the number of selected curves you are pasting to; two things can happen:

If the number of selected target curves is smaller, extra curves are ignored.

If the number of selected target curves is bigger, it will paste as many curves as it has in the buffer.

The Paste buffer can be also used to pass parameters to an expression, individually or in groups. See below.

## Expressions

It is now possible to create parameter curves using mathematical expressions. Expressions offer an alternative to keyframing. In keyframing, you set the values of attributes at selected keyframes in the animation, and Jaleo interpolates the action between the keyframes.

Another way is to define the curve shape as a mathematical expression. The expression can be a function of time, and/or other curve values.

To evaluate an expression, type it to the newly added line on the bottom of the time editor window, select one destination curve, and hit Enter in the expression line. The system will create one control point for each frame, tabulating the user's formula.

Existing curves can be combined to create new ones using the "**cb**" function described below.

All of the trigonometric functions work on radians

### Functions

sin(x)	sine
cos(x)	cosine
tan(x)	tangent
asin(x)	arc sine
acos(x)	arc cosine
atan(x)	arc tangent
atan2(x,y)	arc tangent of x/y
exp(x)	value of x
log(x)	natural logarithm
log10(x)	base ten logarithm
sqr(x)	square of x
sqrt(x)	square root of x
abs(x)	absolute value of x
rand(x)	random value between 0 and x
round(x)	x rounded to closest integer number
trunc(x)	x truncated to an integer value, discarding if fractional part
min(x,y)	the lesser of the two values
max(x,y)	the greater of the two values

### Curve functions

<code>clipboard(i,t)</code>	Return the value of the curve number "i" in the "Paste Buffer", at time "t". "Paste Buffer" is the last arbitrary selection of curves you put there using the cut or copy command.
<code>cb(i,t)</code>	Short-form of the same function.

Below are some examples of use:

`cb(1,t) + cb(2,t)` Add two curves to create a third.

`cb(1,t) * 2.0` Scale values of the curve to double

`cb(1, 100 - t)` Flip the curve over time, (100 frames)

#### Parameter

<code>t</code>	time Value of "time" parameter, ranging from 0 to number of frames of the FX. The function is evaluated for all integer values of "t" in this range.
----------------	--

#### Constant

<code>pi</code>	3.14159...
-----------------	------------

#### Binary Operators

<code>+</code>	add
<code>-</code>	subtract
<code>*</code>	multiplication
<code>/</code>	division
<code>%</code>	modulo
<code>^</code>	rise to the power of

### Creating an expression.

1. Select parameter
2. Type expression in input window, and enter to evaluate

3. See generated curve.

### Using curve(s) as a base for creating another curve.

1. Select one or more curves and copy them to buffer, using the copy command.
2. Type expression in input window. Using the `cb(i,t)` function, you can access the curves in paste buffer now. Hit enter to evaluate.
3. See generated curve.

# Loader and Gallery

## Common features

Some of the features added to these applications are common to both, e.g. the shortcuts and the trimming functions. These changes reflect the close interaction between these applications and the Reel. See [“Hotkeys” on page 9](#).

## Clip dependency



The function of this link, shown on the title bar, is to indicate the target where the clips will go once open, or when using the editing functions.

1. Select clip on Loader,
2. Click on Gallery window  
Loader Title bar points at Gallery
3. Select open clip on loader  
Clips is open in gallery

To select the recipient of this link, simply click on the target application. This change will be reflected in the rest of the related applications Title bar.

This dependency is limited by the application they can send or receive from. The loader can send to the Reel and The Gallery. The Gallery to the Reel or another Gallery.

## Clip window

The clip window has undergone the most changes in the interface, we have made the old window obsolete by supporting new trimming and inserting modes, adding new functions and features.





The lack of source material in the selected/current item, will produce a display of color bars in the window. If the missing source is audio, red lines will be shown.

Working with multiple resolution clips, both applications will resize the image to match the display window. If you select images with a different resolution to the standard you have selected to work with, they will display smaller images.

### Trimming options

Trimmed options will only work with material clips -nclp, .sclp.-, meaning that this information will be kept in *Drag & Drop*, open and editing commands. Although other classes allow marks to be set, they will lose that information once placed in a different application.

Gallery marks are saved within the gallery files, allowing you to have different trimmed versions of the same clip. Loader trim options will be saved in a trim configuration file in the project directory, this allows you to keep the information for future sessions. In case of the system being unable to write to the trimming file, a message in the system console will notify the user.

These in and out marks are now optional. You can define a clip with no marks at all, in this case, the application takes the start of the clip as the in point and the clip's end as the out point. Marking or erasing of these points is also possible on the fly through the shortcuts, although these marks can only be placed accurately in the Reel.

To play back the trimmed version of the clip, in the gallery or loader, select play trim from the setup menu in either application.

### Monitor Output

Shortcuts to switch between Live mode outputs are **Alt+ H** (High) and **Alt+ L** (Low), although the image in the preview window is always in Low Res. Under Setup both applications have the Live Video Submenu which includes Low and High output to video.



To send a clip to LiveVideo under the Gallery, simply choose, Setup>Live Video> High/Low. in order to cut short the step needed to perform this operation, selecting the desired output Mode will automatically output the clip. The same goes for cancelling the output - simply click on the active toggle.



A message in the clip window, indicates when the clip is being send to live video

## Configuration files

The setup options are saved for each application in a dedicated file. This file is used to restore the settings every time you start the application.

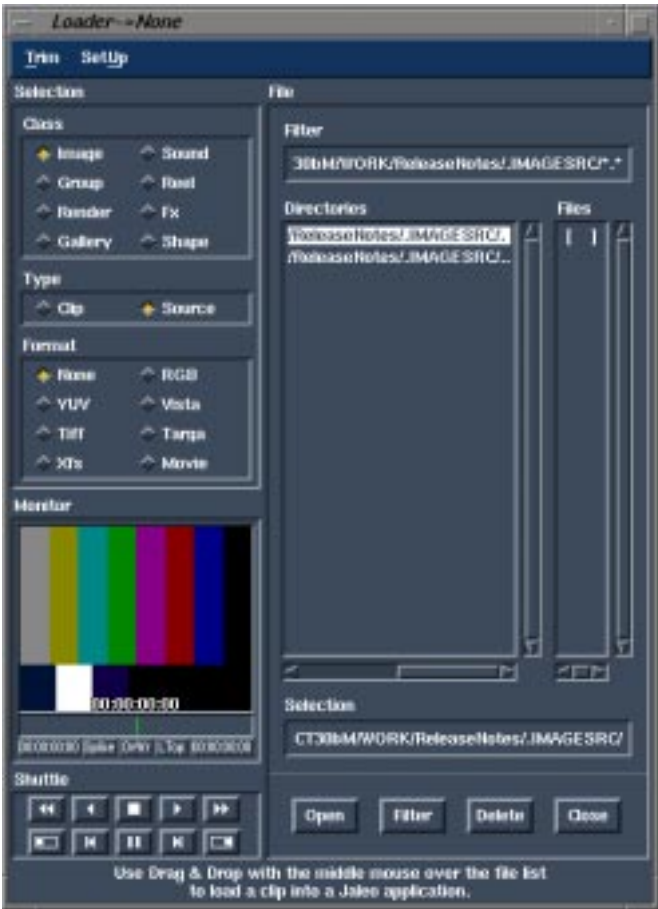
## Audio files

When selecting audio files, as well as dropping audio material into the Reel, Jaleo warns the user about the possible conflicts regarding those files sample rate and the current Jaleo configuration. [To learn more on configuring your audio rate, See “Audio” on page 55.](#)

Both applications force the playback in real-time of the selected clip/clips. Whenever that is not possible, a message at the bottom of the window display will indicate the lack of sync and will add a red border to the image. [See “Application Interaction policy” on page 20.](#)

## Loader

The application has not changed its interface, but some new parameters and menus were added.



The selection of files in the loader follows the standard use of Shift and Ctrl Key, very much like a file editor.

- Shift        inclusive mode
- Ctrl        individual mode

New Menus

Trim

- Set In Mark        i
- Set Out Mark       o
- Remove In Mark    k
- Remove Out Mark   l
- Splice              v
- Overwrite           b
- Lay on Top          n

### Setup (toggles)

Play Trim

Hide TC

Hide/Show the Time-Code in the clip.

Complex loads:

New option not to process/display groups, render and reel.

LiveVideo

High

Alt +H

Low

Alt + L

### New formats

You can access two new formats

XFS

Direct access to the dedicated XFS files system.

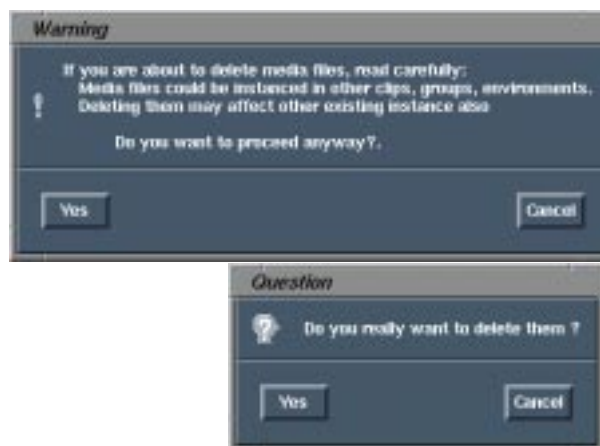
Targa

Targa format files.

Selecting *source* will open the *Format Submenu*, although there are new formats and classes to display, you can only playback in real-time files stored in the XFS system, and the audio files.

### Dustbin replaced by Delete

The Dustbin icon, and its application, has been removed from the desktop. The Loader includes a new delete function, which works as that tool.



### How To use.

1. Click on the desired clip amongst the list in the Loader.
- 2 . Click on the Delete button.

A warning message will announce the procedure...

3. The clip and all its files are erased from the file system.

# Gallery

The application has clear changes in its interface, and the way clips are handled, searched and organized by the application. Also some new parameters and menus have been added.

## New Menus

Edit

OutCtrl+X

CopyCtrl+C

PasteCtrl+V

DeleteDel

Delete AllCtrl+Del

Pack

Split LineIns

Move Up^

Move Downv

Pack

remove the free cells found within the clips, from the current gallery, packing the clips together.

Select

All

Invert

Current

Sort

By Name Asc.

By Name Desc.

By Length Asc.

By Length Desc.

By Trim Length Asc.

By Trim Length Desc.

By TimeCode Asc.

By TimeCode Desc.

By Clips First

By Clips Last

Sift

By Name...

By Type

Trim

Set In MarkI

Set Out MarkO

Remove In MarkK

Remove Out MarkL

SpliceV

OverwriteB

Lay On TopN

Setup

Show GridAlt+G

Snap GridAlt+A

Play Trim

Common Trim

Hide ImageAlt+D

Small ImageAlt+M

Hide TCAlt+T

Columns...

Live Video

## Selection

Selected clips are differentiated by a yellow color in their names and a number found beside the reference color. This number indicates the selection order in which they will be placed in reel when dropped. When selecting using a bounding box, the order is given from left to right and from top to bottom. To set a bounding box, besides clicking in the background of the application to start the box, this version allows for the start of the bounding box to be even a clip.

*Shift* will include/exclude the clip on which you click in the current selection, while *Ctrl* chooses the “current” amongst the selected. The order in which you individually pick clips among the gallery will set the selection order.

At the top right of the clip window a colored square indicates the definition of that clip, these colors are the same as those found in the reel color scheme.

## Current vs. Selected

“Current” clip (name in red) differs from all selected clips (name in yellow) as regards the order in which the commands are carried out. To change “current” clip, press *Ctrl* + *left-click*. As “current” clip is part and parcel of the selection, this change will not affect the selection order. The last clip inserted in the gallery becomes the “current”, any previous clip selection being lost.

Trimming operations only affect the current clip. Similarly, if live-video is enabled, the Gallery will send out the image corresponding to the current clip.



## Shuttle policy

Shuttle commands are the same in all applications, as well as the shortcuts involved in playback control. The policy for single selection is similar to loader, taking into account that in this case play is always in single mode.

When multiple clips are selected, the “current” indicates the first clip to be played, followed by the consecutive numbered clips. As the playback reaches the next clip, this becomes the new “current”. You do not need to change the cursor position of each clip to playback a multiple selection forwards or backwards; Just set the desired clip as the “current” and execute the command.

## Common trim control

Jaleo has provided a set of global controls to enhance display of trim data when working with a big number of clips in the gallery.

The new common trim function will create a global clip trim bar below the window menu that substitutes the local trim control found under each clip. Once the global trim control is running, manipulate its contents by hot keys, or shortcuts. These controls affect only the currently active clip.

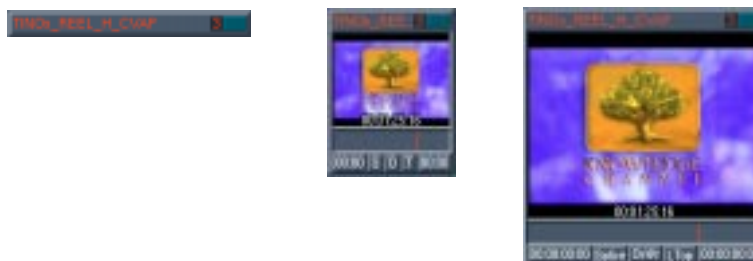


Common trip bar

Switching between control modes or clips will not alter the stored information, but the marks will be distracted once you close the Gallery, to keep the clip changes permanently, save the gallery.

## Small & Hide Image

Clip images can be displayed in two sizes, or you can even work without displaying any image; In this case you will only see the header of the clips. Working in this mode, will disable all image related commands: shuttle and trim options.



Three sizes to display clips, No image, Small and Big.

## Arranging clips

The number of columns within which the clips are arranged is now controlled by a new function found under Setup > Columns ... or Left click in the between the two white bars marking the end of the usable area. A window will pop up where any number of columns could be set. The minimum being one, and having no upper limit.



When dropping clips from other applications, on top of an occupied cell in the grid, these will be inserted and not added to the end. The following clips will move right and down. When a clip is dropped outside the usable range, ( i.e the number of columns left of the limiting double white bar), the clips are transported to the closest cell inside the grid base, displacing any clips already there.

When working on a non "Snap Grid" mode, the "Sort" menu is disabled, as well as sort related commands found under the "Edit" and "Select" menu, because the grid is used to place the clips once sorted.



# VTR Manager

The main functionality of the VTR manager, is the output of the Reel in real-time to an outside media. To guarantee the application has the necessary resources to perform this in real-time, some rules apply, [See “Application Interaction policy” on page 20.](#)

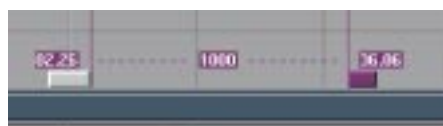
If a VTR is not connected/detected or not in remote mode, the window will not completely gray out. Instead, it will send a warning each time you try to control the VTR and it will stay offline. Also, possible format's differences (DF/NDF) between the setup and the tape in the device are notified to the user.

Only one VTR can be used at a time, meaning that: If you are working in a Reel with an open VTR window and a second Reel wants to use the VTR, calling it by the shortcut (F8) or the menu option, the window will become active for that Reel.



The application will only output in real-time those clips in the XFS file system. Any non-real-time effect in the Reel will have to be render first. If any portion of the Reel, or the selection to output, has this kind of problems, a message window will indicate a lost of sync error.

The election of clips is straightforward, you select the clips you want to output and launch the VTR, or place the Play marks in the Reel to define the area to record. In both cases the application will place the Play marks, or use existing Play marks to define the output area.



### Corresponding Play marks to above image

Upon selecting the desired clips, to launch the application, choose VTR from the Tools menu. This application will automatically place the global play marks on the reel, based on the selection.

The input and output time code comes from those play marks. The In and Out button in the Tape positions frame, will take the current TC in the device as input for that field.

The Tape positions are user defined or can be locked to the Reel TC by clicking on the Anchor toggle. When the anchor toggle is activated, the record positions will be defined directly by the time-code defined on the Reel play-marks. There is no need to select any position on the tape. The global tape position will be defined by setting the Global Origin value.

In the VTR window, the "Reel position" in/out TC fields will be grayed out, and the "Tape position" in/out fields indicate the recording position of the clip. Only these two TC fields will remain active, and their value is a constraint to the play-marks.

If the anchor toggle is set off, the TC of tape In is independent of the play-marks In position. However, the distance in-out of both Reel and Tape positions will always be the same. The rules to keep the distance equal are:

- If either Out value is changed, the other Out value is recalculated automatically to apply the new length. (play-mark out will also always move accordingly)
- If Reel-In field is changed (or play-mark-in is moved), the Tape-Out will be recalculated to new length.
- If Tape-In field is changed, the Tape-Out will be recalculated to keep the length given by play-marks.

The device control panel has the same functionality as that found in the RtVideo.

How to record a reel segment:

- 1 . Place the Play marks in such a way that they embrace the segment that you wish to record. The segment has to be capable of real-time playback. Render at first any parts that can not play in real time.

2. Launch the VTR

Menu tools – VTR manager (F8)

If you did not place the marks yet, they will be placed so they will embrace the currently selected objects.

3. Select target TC in device, or use the “anchor” mode to map the reel time-codes to the tape ones.

4. Press the EDIT button

If no monitor is present in the reel by now, VTR manager will bring out a monitor and redirect this output toward your recording device.

The segment will be recorded on the VTR.

# RtVideo

Although the basic functionality of the application hasn't changed, some of the elements in the interface and the position of commands have. The new DMC (Dynamic Motion Control) bar in the shuttle area is the same, in display and functionality (including shortcuts), as the Reel or VTR window, taking into account however that it will not work in Playout - clip mode.

The Mode & Command menu is now found at the bottom of the application, and like the VTR, we have use colors to identify its use.

## New Window



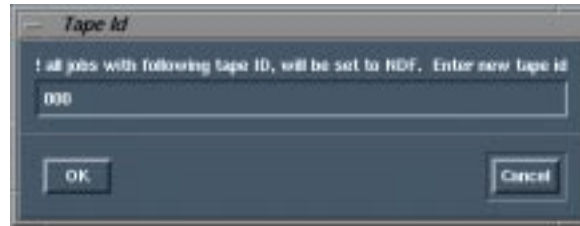
**Note:** The remaining time is now expressed in megabytes (MB)

This version includes a completely new Selection menu that together with the standardization of the selection shortcuts, permits the organization of jobs by Tape, audio only or job status.

The selection shortcuts work like other applications, *Shift* will include/exclude the pointed clip to the actual selection, while *Ctrl* chooses the current amongst the selected.

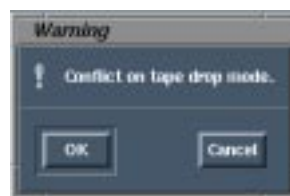
To check possible format conflicts and confirm the current TC, every time a new tape is inserted in the device, this will play the tape for a brief moment, before returning control to the user.

Then a dialog-box will ask the user to enter the new tape ID. If necessary, it will include a warning on the tape's format (Drop-frame, Non-Drop-frame time code).



While the dialog-box is waiting for the user input, control over the tape is now active, allowing you to search the tape for confirmation of its ID or content.

The icon that indicates the job DFF mode will function as a toggle, enabling quick change of format. This may create conflicts with the tape or/and clip sync output to video, so make sure that your tape matches the output format before final edition. As always you can't have the same tape number with two different formats; when you change the format of a job, the application will assign the same format to all jobs with the same tape ID.



The initial configuration of the default tape is given by the `.jaleorc` file, and is overwritten once a tape is inserted and becomes the default for all new jobs added to the editing list.

The new Preview button, in the Command area, will perform a test output of the selected clips without activating the Recording in the target device. Use this function, amongst other things, for audio sync when recording video only

## Free mode

The Free capture/payout window will include a default name and padded number, only if the Job name option is filled, under the setup option in the RtVideo. This Sequenced padding increases with every additional job.



The Free Mode window makes use of a new shortcut, the space bar<space>. This shortcut marks the beginning and end of the capture/playback. After each clip is captured, the padded number increases to permit continuous capture.



## New Menu Options



Sorting works based on the active clip. If you have selected a clip with tape number 1 and clicked on Select > Select by Tape, the application will toggle the selection mark on all clips with the same tape number.

# Paint

Bellow we list all the new fuctionality found in the Paint module.

## New Features in Paint

- Tangents at the beginning and the end of curves are created as if it were closed. The difference is that when open, extreme points only have one tangent (not two, as the rest).
- Conversion curve-polyline is now a bit more homogeneous and symmetric. Tangents added to polyline shapes to become curves follow the same rules as if they were newly created.
- Cut, copy and paste keyframes in Fields mode is now available for first and second field of frames. The textbox that indicates the current frame now also shows the current field, if Fields mode is on.
- Tangents for points of curves are now created as if they belong to the same line (i.e. as if they were only one tangent). These tangents are created considering the previous and following point. In open curves, first and last points have only one tangent but it is created in the same way.
- Line to curve conversion uses the tangent's policy described above.
- Snap to grid is now available for every point/position related tool.
- Paint texts are now saved as .ptxt instead of .txt; its contents are formatted and they are different than .ftxt managed by Title.
- Action Shuttle>Cancel has been supressed, as it is completely similar than Shuttle>Stop. Notice that its hotkey <esc> is now available.
- Changing from a Paint object to another forces to deselect all shapes.
- Changing from a frame to another in the same Paint, deselects all normal shapes but keeps selection for animated shapes. In this way, a selected animated shape keeps selected despite the frame shown
- Now, when an environment with Paint clips is saved, it is checked if one of these clips had problems and an error message is shown in that case.
- Magic Wand selection is cleared from a frame to another, and from a Paint to another, of course. Fill objects can be multi-selected by clicking the mouse with shift pressed.

## Working with Shapes

Working with shapes has same new fuctions as well.

- Shapes are now closed after change the current frame to another. In fact, when leaving a frame it is forced a double click to finish a partially created shape or whatever. The last tool selected in the source frame is kept in the destination frame, except Transform Tool which changes to Stroke Tool.
- Shapes are also finished when any feature is selected in Toolbox Window.
- Extending curves respect the rule of tangents, that is they are created as if the shape is closed.
- Shapes can be closed/open while creating them without problem.
- Points of shapes can be moved while creating them. (It affected the tangents before)
- In general, selecting a new feature from ToolBox window finishes the shape under creation.



# Project Manager

Some warnings and question messages have been removed, in order to reduce confusing or barely useful information to and from the user. In addition, the projects list now uses different font types to mark projects that have any kind of problem, such as permission denied and non existence. Fully accessible projects are displayed with normal/bold font and the rest with italic/thin font. The status of projects can be updated by re-selecting them (e.g. if permissions are changed or a directory is deleted).

The most relevant aspects of current Projects behavior includes:

- Invalid project names are simply discarded.
- Missing subdirectories are automatically created, if possible.
- It doesn't warn on previously existing directories.
- Projects without permissions or that are non-existent are marked.
- Deleting a marked directory just remove it from the list. Its directory tree is not deleted.

# Setup Manager

The Setup manager enables the user to configure different working environments and windows placement, useful during the different parts of the editing and composting process.

The only difference in this version is that switching modes keeps gallery contents loaded. These saved setups, save current information present in the gallery at the time, allowing for a change of gallery on the fly. In order to have the setup manager working properly, at least one Reel must be open.

The Setup Manager can not save more than one reel in a setup configuration, although you can work in that session as long as you don't close the application.