
mocha® Pro v5.2.0 Release Note

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Introduction

These release notes accompany **mocha Pro 5.2.0**. This is a patch update to support floating licenses in the main mocha standalone build along with Python updates, defect fixes, improved GPU support and other performance/stability improvements.

Documentation is available inside **mocha Pro 5.2.0** by pressing the F1 key.

New Features

- **Dual float/node-locked license support:** You no longer need a separate mocha FL build to run float licenses in the standalone.
- **New Render License Support:** You can now render on separate machines using a floating render license.
- **Improved GPU Tracker:** Support for 16 and 32 bit source images.
- **mocharender.py frame offset support:** Python `mocharender.py` and `mochaexport.py` scripts now accept arguments to set a frame offset.

Fixed Issues Since 5.1.1

Issue:	DE4826 mocha Pro LE cannot open LE project files
Platform:	All Platforms
Bug Description:	mocha would refuse to open any LE file when in LE mode.
Issue:	DE4809 mocha is coming up as unlicensed even if previous version of the license exists
Platform:	All Platforms
Bug Description:	mocha should now recognize previously installed node-locked licenses correctly.
Issue:	DE4800 Custom PYTHONPATH causes a system-wide PySide version to load in mocha
Platform:	All Platforms
Bug Description:	You can now avoid conflicts with Pyside when using a custom PYTHONPATH
Issue:	DE4667 mocharender.py doesn't acknowledge <i>use cleanplates exclusively</i>
Platform:	All Platforms
Bug Description:	Saving a project with <i>use clean plates exclusively</i> in a remove layer now gets acknowledged by mocharender.py
Issue:	DE4647 License errors are not logged correctly
Platform:	All Platforms
Bug Description:	License errors for node locked and floats are now logged accurately.

Known Issues

Issue:	DE4855 Severe lag in GUI when using large numbers of layers.
Platform:	All Platforms

Bug Description:	When using large numbers of linked or constrained layers (300+) the mocha GUI starts to lag significantly.
Workaround:	Merge file in v4, save and reopen in v5.
Issue:	DE4758 Cleanplates can be set outside the frame range
Platform:	All Platforms
Bug Description:	Cleanplates can be set to frame range zero, even if the clip range is above zero.
Workaround:	Check that clean plate numbers match timeline correctly.
Issue:	DE4749 Adjusting a manual track after tracking causes whole timeline to offset
Platform:	All Platforms
Bug Description:	Adjusting in manual track mode after tracking a layer can cause the entire surface to offset.
Workaround:	None.
Issue:	DE4730 Crash when choosing footage if stored last directory is missing
Platform:	All Platforms
Bug Description:	If a project directory from a previously opened file no longer exists, attempting to start a new project may crash mocha.
Workaround:	Edit the preferences file to the right location.
Issue:	DE4677 Keyframes aren't created on the timeline when moving mesh points
Platform:	All Platforms
Bug Description:	When you are altering warp mesh points, keyframes are created in the dope sheet but not the main timeline
Workaround:	None.
Issue:	DE4676 Crash on tracking DPX footage with huge frame numbers
Platform:	All Platforms

Bug Description:	Crash on tracking DPX footage with huge frame numbers
Workaround:	Change the Frame Offset entry field to a low number, such as 1 (either manually or by choosing the Fixed Frame radio button).
Issue:	DE4671 Tracking very large files consumes a lot of memory
Platform:	All Platforms
Bug Description:	Tracking very long and large files can eat a lot of memory.
Workaround:	Track very long and large footage in stages.
Issue:	DE4654 Windows 10 is reported as Windows 8 in error log
Platform:	All Platforms
Bug Description:	Error log shows "Windows 8 (OS version 6.2+) 64-bit " on Windows 10.
Workaround:	None.
Issue:	DE4644 When editing layers with multiple x-splines, spline tangents only animate for the selected layer
Platform:	All Platforms
Bug Description:	In scenarios where a layer has multiple x-splines, when you try to relax all the spline tangents on both splines, only the ones for the layer you've selected with the mouse animate before you let go of the mouse
Workaround:	None.
Issue:	DE4621 Pasted layer shape data to Fusion has blank or incorrect layer name if mocha layer contains non-Latin characters
Platform:	All Platforms
Bug Description:	Pasted layer shape data to Fusion has blank or incorrect layer name if mocha layer contains non-Latin characters
Workaround:	Rename layer with Latin-1 characters.
Issue:	DE4603 Alternate black frames in a Cineform AVI file

Platform:	All Platforms
Bug Description:	Some Cineform AVI files show every other frame as blank (black and zero alpha).
Workaround:	Use a different codec.
Issue:	DE4590 "Apply" button in Insert 3D offset is turned off when reopening mocha
Platform:	All Platforms
Bug Description:	The "Apply" button in the Insert Transform tab currently resets when closing mocha.
Workaround:	Turn Apply on again.
Issue:	DE4588 Infinite loop error message when adjusting surface in manual track
Platform:	All Platforms
Bug Description:	In rare cases you can get a repeating error message if you try to adjust a tracked surface in Manual mode.
Workaround:	None.
Issue:	DE4571 X-Splines with very close points cause spline problems in AE <i>Paste mocha mask</i>
Platform:	All Platforms
Bug Description:	X-spline Points too close together can cause erratic splines with <i>Paste mocha mask</i>
Workaround:	Use bezier or pull points further out.
Issue:	DE4554 Point insertion tool reverts back to pick tool after zooming or moving
Platform:	All Platforms
Bug Description:	If you zoom or pan using toggles, the point insertion tools returns to the Pick tool.
Workaround:	None.
Issue:	DE4540 Layers with in points outside of the Project in point do not export shapes correctly to Fusion

Platform:	All Platforms
Bug Description:	Layers do not come in correctly when the layer in point is before the project in point
Workaround:	Set the layer in point to be the same as the project in point if it is before the project in point.

Issue:	DE4491 Tracking with a script no longer updates view correctly
Platform:	All Platforms
Bug Description:	Tracking via the Python script editor doesn't update the canvas correctly.
Workaround:	None.

Issue:	DE4484 Remove keyframe doesn't auto update
Platform:	All Platforms
Bug Description:	Creating a keyframe doesn't enable the "remove keyframe" button.
Workaround:	Move the playhead away from the key and then return it.

Issue:	DE4468 Cannot remove mesh point keyframes
Platform:	All Platforms
Bug Description:	Removing mesh warp keyframes does not update the mesh.
Workaround:	None.

Issue:	DE4462 Zoom windows show whole clip image for the cropped clip
Platform:	All Platforms
Bug Description:	You can see the whole clip image in Zoom windows even if they are cropped.
Workaround:	None.

Issue:	DE4458 GPU tracking isn't stopped when the object is out of the image
Platform:	All Platforms

Bug Description:	GPU keeps on tracking if the layer goes out of the image.
Workaround:	Stop manually.
Issue:	DE4446 Manual Track surface adjustments only works sporadically when using Wacom Tablet
Platform:	All Platforms
Bug Description:	Using a tablet can sometimes effect manual adjutment of the surface
Workaround:	Use a mouse instead.
Issue:	DE4441 mocha Pro takes very long time to verify on Mac
Platform:	All Platforms
Bug Description:	Presently a bug in El Capitan causes mocha Pro to take a very long time to verify.
Workaround:	Turn of app security in Security and Privacy settings before running the first time.
Issue:	DE4418 Sometimes there is an "Original and fill image formats don't match" error in remove with imported cleanplate clip from V4
Platform:	All Platforms
Bug Description:	Importing old clean plates can cause some read issues in the remove module.
Workaround:	None.
Issue:	DE4408 Masks and shapes with non-Latin characters are not pasted correctly in AE
Platform:	All Platforms
Bug Description:	Non-Latin 1 names for layers will paste to AE with incorrect characters.
Workaround:	None.
Issue:	DE4380 Export Rendered Shapes does not support some image formats if high bit-depth clip is shown in viewer

Platform:	All Platforms
Bug Description:	A high-depth clip showing in the viewer stops support for some images when exporting to Export Rendered Shapes
Workaround:	Switch clips in the viewer.
Issue:	DE4346 Gamma resets from 2.2 to 1.0 when relinking EXR files
Platform:	All Platforms
Bug Description:	Gamma resets from 2.2 to 1.0 when relinking EXR files.
Workaround:	Change back to 2.2 in the Clip page.
Issue:	DE4319 Selection tools should be in tools
Platform:	All platforms
Bug Description:	The lasso and marquee selection tools should be in the Tools section of the Key shortcuts dialog.
Workaround:	None
Issue:	DE4275 Wrong focus behavior after cancelling conversion to 8 bit dialog for a matte clip
Platform:	All Platforms
Bug Description:	Focus jumps to the Project in point field when cancelling matte clip conversion.
Workaround:	None
Issue:	DE4274 Canvas drops to the "Selected layer" from the layer matte clip after renaming the layer
Platform:	All Platforms
Bug Description:	If you rename the layer while viewing a matte clip, the view changes back to "Selected layer"
Workaround:	Reselect the matte clip from the clip view options
Issue:	DE4271 Zoom windows aren't moved when we drag mouse pointer over them on the Track and the Camera Solve pages
Platform:	All Platforms

Bug Description:	If you move the mouse over the zoom windows in some modules, they do not move out of the way.
Workaround:	None
Issue:	DE4268 "Undo Render in All Frames" is not enabled for Stabilize
Platform:	All Platforms
Bug Description:	You cannot undo the renders in Stabilize.
Workaround:	Delete the stabilize render clip from the Clips module.
Issue:	DE4265 Low accuracy warning isn't shown after changing export type
Platform:	All Platforms
Bug Description:	If you export a camera solve and then export again to another data type, you are not warned about any low accuracy nulls.
Workaround:	None.
Issue:	DE4263 Adjusting manual tracking with a tablet pen alters other keyframes
Platform:	All Platforms
Bug Description:	If you track frames then add manual track keyframes with a tablet pen, the other frames offset.
Workaround:	If you use a mouse it behaves normally.
Issue:	DE4261 Pressing Zoom(Z) or Pan(X) keys causes overlays to disappear and alpha to stop working if Proxy is not 1:1
Platform:	All Platforms
Bug Description:	If you use the Z or X (the default pan/zoom) keys, overlays and alpha stop showing. Unselecting the key turns them back on.
Workaround:	Stay on 1:1 resolution
Issue:	DE4258 Sometimes AE mask looks incorrect when exporting an x-spline

Platform:	All Platforms
Bug Description:	Some AE bezier masks can have unexpected curves when exporting from an x-spline layer
Workaround:	None

Issue:	DE4246 No insert preview on any other clip other than the original clip
Platform:	All Platforms
Bug Description:	When a layer has an insert clip, you are unable to view it unless you are viewing the original tracking input clip on the canvas.
Workaround:	Switch to tracking input clip in the viewer.

Issue:	DE4212 GPU tracker crashes on certain hardware
Platform:	All Platforms
Bug Description:	Some systems crash when using GPU tracking due to driver bugs or incompatibilities.
Workaround:	Turn off GPU tracking or use a different card/driver. Please report problems to technical support if you think your card should be supported.

Issue:	DE4193 Wrong order after pasting copied layers if their order was changed
Platform:	All Platforms
Bug Description:	If you copy a layers after reordering them in the layer controls, they don't paste in the same order.
Workaround:	None

Issue:	DE4177 Switching between different layouts makes canvas area change position
Platform:	All Platforms
Bug Description:	When switching between different views using CMD+1, CMD +2, CMD+3 buttons, the currently viewed area changes.
Workaround:	None

Issue:	DE4174 Wrong layer order in groups after project merging with the "Merge groups together" option
Platform:	All Platforms
Bug Description:	There is a mixed layer order in groups after project merging with "Merge groups together" when using a new name or keeping the existing name.
Workaround:	None

Issue:	DE4161 Cannot render an Insert after rendering stereo Remove if Insert clip contains predefined Grid clips on Linux
Platform:	Linux
Bug Description:	Attempting to render predefined Grid clips in the Insert module after rendering a Remove in stereo causes an error.
Workaround:	Select an insert clip before performing a Remove render

Issue:	DE4150 Deactivation layer on some frame range makes render fail
Platform:	All Platforms
Bug Description:	Deactivating a layer over a frame range can cause renders to fail.
Workaround:	None

Issue:	DE4138 Removing a selected point after stepping over points causes removing the layer
Platform:	All Platforms
Bug Description:	Using the { and } keys to step over points will delete the layer if you try to delete the single point.
Workaround:	Select the point without stepping first.

Issue:	DE4134 States of add/delete keyframe buttons are incorrect after adding/removing keyframes
Platform:	All Platforms
Bug Description:	Delete keyframe is disabled and add keyframe button is enabled when animating a control point, and vice versa when on a non-keyframed frame.

Workaround:	None
Issue:	DE4115 Poor performance when rendering R3D clips on proxy scale
Platform:	All Platforms
Bug Description:	Performance is slow when rendering with R3D footage that isn't set to full resolution.
Workaround:	Set resolution to Full (1:1) before rendering.
Issue:	DE4098 Tracking data is not applied to the canvas when tracking starts from a frame without a keyframe
Platform:	All Platforms
Bug Description:	If you start tracking a layer from a frame different to where you drew it, the layer will not update correctly until after tracking is done.
Workaround:	None
Issue:	DE4096 Sometimes changing PAR from Python scripts doesn't cause recalculation of tracking data
Platform:	All Platforms
Bug Description:	Tracking data is recalculated incorrectly when changing the PAR via Python.
Workaround:	None
Issue:	DE4052 Render cache files are not removed after closing a project without retain cache renders
Platform:	All Platforms
Bug Description:	Unchecking "Retain Cached Renders" when closing a project does not clear the cache.
Workaround:	Use the cache clearing tools in the file menu or delete manually.
Issue:	DE4049 Cannot change some parameters for invisible layers on the Track page
Platform:	All Platforms

Bug Description:	If you turn off the visibility of a layer, some of its parameters cannot be altered.
Workaround:	Turn on the layer visibility.
Issue:	DE4031 Improper diagnostics for incomplete Python tool
Platform:	All Platforms
Bug Description:	Script editor output does not warn of Python tool errors.
Workaround:	None
Issue:	DE4028 Cannot change parameters in grouped layers for some projects
Platform:	All Platforms
Bug Description:	Layers inside groups have sporadic ability to change radio buttons and check boxes
Workaround:	Pull layers out of group
Issue:	DE4001 Error when closing a project after rendering on the Remove page if the removed layer has defined matte clip in the Layer Properties pane
Platform:	All Platforms
Bug Description:	Using a custom matte import for a layer involved in a remove render can cause an error when trying to clear the cache.
Workaround:	None
Issue:	DE3995 Auto Camera Solve shows zero quality without warnings for some projects
Platform:	All Platforms
Bug Description:	Auto camera solves sometimes solve to 0% and don't advise another approach.
Workaround:	Try solving with a non-Auto solve.
Issue:	DE3980 Shape data to out of sync if layer has in point different to timeline
Platform:	All Platforms

Bug Description:	If a layer has a different in point to the project in point, it is out of sync.
Workaround:	Extend the layer in point to the start of the project.
Issue:	DE3976 Windowed EXRs open at full resolution
Platform:	All Platforms
Bug Description:	EXRs with windows still open at full resolution.
Workaround:	None
Issue:	DE3953 Entered values don't save in Lens parameter widgets after selecting Distortion Maps type
Platform:	All Platforms
Bug Description:	Selecting Distortion Maps model doesn't always let you change the Lens parameters.
Workaround:	None
Issue:	DE3949 mocha crashes on exit after creating a project based on ProRes footage if there are no ProRes codecs but Blackmagic codec is installed
Platform:	OS X
Bug Description:	mocha crashes on exit after creating a project based on ProRes footage if there are no ProRes codecs but Blackmagic codec is installed
Workaround:	Install ProRes codecs
Issue:	DE3943 Twisted loops occur in beziers for some exports
Platform:	All Platforms
Bug Description:	Exported Beziers can sometimes have looped splines in closely animated points.
Workaround:	None
Issue:	DE3935 Mocha loads behind After Effects when launching from "Track in mocha AE" on OS X
Platform:	OS X

Bug Description:	Mocha always loads in the background when launching it from After Effects.
Workaround:	None
Issue:	DE3911 Cannot render insert with the mocharender.py utility if the rendered layer has some predefined insert clip
Platform:	All Platforms
Bug Description:	Inserting predefined clips like Logo and Grid8x8 will not let you render that layer via command line.
Workaround:	Use a custom clip.
Issue:	DE3890 Maximized mocha window size never remembers state on Mac
Platform:	OS X
Bug Description:	Opening mocha on OS X will resize the window, even if you have adjusted it to full screen previously.
Workaround:	None
Issue:	DE3860 Render buttons are disabled if the playhead is out of the frame range of the selected layer
Platform:	All Platforms
Bug Description:	You cannot render a layer if the playhead is resting outside of a layer in or out point.
Workaround:	Move the playhead to inside the layer in/out points.
Issue:	DE3837 mocha crashes when exporting shape data to some formats if layer name contains more than 205 characters
Platform:	Linux and Windows: all
Bug Description:	Layers with huge amounts of characters in the name may crash mocha on exporting shape data.
Workaround:	Use a shorter name.
Issue:	DE3836 A project can load without layers if the layers contain some peculiar characters
Platform:	All Platforms

Bug Description:	Some characters do not read in project files and may not load layers correctly.
Workaround:	None
Issue:	DE3796 Cannot add a control point in the left bottom corner of an image
Platform:	All Platforms
Bug Description:	There is an issue with adding a point to the exact bottom left corner of a frame.
Workaround:	None
Issue:	DE3792 Checking the default tracking clip during project load should check the source location, not the cache
Platform:	All Platforms
Bug Description:	Mocha is checking the cache location before the original source clip to restore the tracking clip on load.
Workaround:	None
Issue:	DE3791 Extra error message when using Python to export rendered clip without images
Platform:	All Platforms
Bug Description:	Two error messages are shown instead of one when attempting to export a rendered clip that doesn't exist.
Workaround:	None
Issue:	DE3789 Cannot detect and move spline points if they are located near spline line of another spline in the same layer
Platform:	All Platforms
Bug Description:	Points that are close to other splines are hard to select and move.
Workaround:	Zoom in further to make selection easier.
Issue:	DE3786 There is no message about unsupported formats if mocha launches from command line with an unsupported footage

Platform:	All Platforms
Bug Description:	The usual error message for unsupported footage does not show if mocha is launched from command line.
Workaround:	None
Issue:	DE3778 Previous and Next keyframes zoom windows change according to the position of the current keyframe when moving surface corners in manual track mode
Platform:	All Platforms
Bug Description:	The previous keyframe zoom window is referencing the current keyframe when adjusting in manual track mode.
Workaround:	None
Issue:	DE3776 It is possible to open or start a project while another is loading.
Platform:	All Platforms
Bug Description:	If you are quick enough, or the project is large, it is possible to start or open another project while the first is still loading.
Workaround:	Wait until the project finishes loading before opening a new one.
Issue:	DE3775 Wrong surface behavior in adjusting on a frame which is before the master frame and contains a layer keyframe
Platform:	All Platforms
Bug Description:	Reference points are adjusted instead of the surface points when adjusting on a frame before the master keyframe
Workaround:	Reset the AdjustTrack solution and try again.
Issue:	DE3762 Cache and rendered clips files aren't removed after closing a non-modified project
Platform:	All Platforms
Bug Description:	If you don't edit a project that has "Cache original clip" turned on, the cache files are not removed on exit.
Workaround:	Don't cache the original clip unless you have to.

Issue: DE3761 Undo of pasting a contour to existing layer drops layer selections

Platform: All Platforms

Bug Description: Undoing a contour paste removes the selection from the current layer.

Workaround: Reselect.

Issue: DE3751 Crash for multi-pass removing

Platform: All Platforms

Bug Description: Attempting to use a previous remove clip as the input of a new remove clip can cause a crash.

Workaround: Import the previously rendered clip separately from the original render and use that to remove with.

Issue: DE3739 Sometimes there is no ability to create a project based on footage that contains % and non-Latin characters in the path on Mac

Platform: OS X

Bug Description: Some character combinations in a footage name can stop a project from being created.

Workaround: Use standard unicode characters and avoid some symbols like / or %.

Issue: DE3737 Wrong project and clip names if the footage contains % and digits characters in the file name

Platform: All Platforms

Bug Description: Incorrect project and clip names are created if % is in the file name followed by digits.

Workaround: Don't use % in your file name.

Issue: DE3736 There is no ability to enter footage path in the Relink dialog manually

Platform: All Platforms

Bug Description: The relink dialog can prevent you from entering a footage path.

Workaround:	Use the Choose button instead.
Issue:	DE3711 Panes that were undocked during loading process return to the dock state after opening a project
Platform:	All Platforms
Bug Description:	Undocked state is not remembered on closing.
Workaround:	None
Issue:	DE3708 There are two "Matte for a layer" clips for the same layer after reselecting None as a Matte clip for it
Platform:	All Platforms
Bug Description:	Selecting "None" in the Matte clip dropdown for a layer adds a new layer matte clip if you add another contour.
Workaround:	None
Issue:	DE3703 Error when trying to paste spline data in the Dope Sheet
Platform:	All Platforms
Bug Description:	If you have spline data on the clipboard and try to paste to the dopesheet, there is an error.
Workaround:	Copy keyframes first.
Issue:	DE3686 Removing "activate/deactivate" layer keyframe doesn't update layer state on the canvas
Platform:	All Platforms
Bug Description:	The canvas doesn't refresh after removing activate or deactivate keyframes from a layer.
Workaround:	Move mouse cursor to the canvas or switch between frames
Issue:	DE3663 Cannot paste mocha masks in AE if some layer has more than 32 characters in its name
Platform:	All Platforms
Bug Description:	Shape layers with very long names cannot be pasted into After Effects.

Workaround:	Use a shorter name.
Issue:	DE3639 Lasso and Marquee selections actions are in the wrong group of shortcuts
Platform:	All Platforms
Bug Description:	Lasso and Marquee shortcuts should be in the Tools category not General.
Workaround:	None
Issue:	DE3636 Start Frame calculates wrong after entering negative value as Fixed frame in the Frame Offset field
Platform:	All Platforms
Bug Description:	BUGTEXT
Workaround:	None
Issue:	DE3635 Frame Offset returns to default Fixed Frame after entering negative value and moving focus between clip frame range fields
Platform:	All Platforms
Bug Description:	Inserting a negative frame offset in the New Project dialog can set the wrong offset.
Workaround:	Change the offset after the project is created.
Issue:	DE3631 Changing In/Out layer points by mouse rotation aren't added to Undo/Redo history
Platform:	All Platforms
Bug Description:	Rotational control adjustment of a layer in/out point is not undoable.
Workaround:	Type instead of using the mouse to adjust the value.
Issue:	DE3629 Error when closing a project without Retain Cached Renders after rendering on the Lens page with Distortion map camera model
Platform:	All Platforms
Bug Description:	Switching of "Retain Cached Renders" after performing a Lens distortion map render can throw an error.

Workaround:	None
Issue:	DE3624 Frame offset field does not switch between frames and timecode
Platform:	All Platforms
Bug Description:	Turning on "Timecode" for the frame offset view in the Clip tab does not update the frame offset field to timecode.
Workaround:	None
Issue:	DE3616 Cleanplate clips are created with source sequence filename extension rather than TIF/DPX
Platform:	All Platforms
Bug Description:	Clean plates should be written as the default Results format (TIF or DPX), not the source format.
Workaround:	None
Issue:	DE3613 Stabilized Fixed Frames work incorrectly if there are negative frames in the Frame List
Platform:	All Platforms
Bug Description:	Using negative frames in the Stabilize Frame List can show incorrect results.
Workaround:	None
Issue:	DE3612 Cannot export whole rendered clip if there is a negative frame offset
Platform:	All Platforms
Bug Description:	Setting negative frame offsets will not export the full range of a rendered clip.
Workaround:	None
Issue:	DE3611 Wrong numbers are shown for frames with negative numbers
Platform:	All Platforms
Bug Description:	Some frame ranges in mocha can be incorrect when using a negative frame offset in the Clip tab.

Workaround: None

Issue: DE3610 There is ability to nudge shapes during tracking process

Platform: All Platforms

Bug Description: Shape nudging shortcuts are not disabled while tracking.

Workaround: None

Issue: DE3604 Rendered clips files aren't removed after deleting the corresponding rendered clip

Platform: All Platforms

Bug Description: If you remove a rendered clip from mocha, it doesn't remove the rendered files on disk.

Workaround: Delete manually.

Issue: DE3588 Wrong exported tracking data for Fusion format for interlaced projects

Platform: All Platforms

Bug Description: Exports to Blackmagic Fusion based on interlaced footage have the wrong height and y scale.

Workaround: None

Issue: DE3570 Edge is shown for open splines that were made from closed splines

Platform: All Platforms

Bug Description: If you created an edge for a closed spline, then open it the edge for the close spine still shows.

Workaround: Reset edge with before opening spline.

Issue: DE3554 There is ability to step between control points for locked or invisible layers

Platform: All Platforms

Bug Description: You can use the "Next control point" controls to cycle through locked or invisible layers.

Workaround:	None
Issue:	DE3549 Cannot move points of a Bezier layer after undoing the creation of a new layer
Platform:	All Platforms
Bug Description:	If you have created a bezier layer then make another shape, undoing the second layer causes the bezier to be unadjustable.
Workaround:	None
Issue:	DE3541 Redundant parameters are shown In the Dope Sheet after switching project mode from stereo to mono
Platform:	All Platforms
Bug Description:	Redundant keyframes are pasted when copying keys from a stereo project and pasting them to a mono project.
Workaround:	None
Issue:	DE3538 Video gamma for Log colorspace remains from the previous project
Platform:	All Platforms
Bug Description:	Video gamma does not reset for log color space when starting a new project.
Workaround:	Restart mocha before beginning a new project.
Issue:	DE3537 Inconsistent layer mode after undo moving points of several layers
Platform:	All Platforms
Bug Description:	Multiple changes to different layers then undoing them can cause problems with some layers.
Workaround:	None
Issue:	DE3535 Relinked clip images are shown instead of images from the original clip if the project was closed with "Retain cached renders" on
Platform:	All Platforms

Bug Description:	Sometimes relinked clip images are shown instead of images from the original clip if the project was closed with "Retain cached renders" on.
Workaround:	None
Issue:	DE3527 Tangents of slave neighboring points are changed when moving a master point
Platform:	All Platforms
Bug Description:	Lock Tangents doesn't work correctly if moving the point by attaching it to a master point on another layer.
Workaround:	None
Issue:	DE3526 Inconsistent mode for Bezier tangents after undo/redo their changes
Platform:	All Platforms
Bug Description:	Bezier tangent handles can sometimes follow the cursor after undoing Bezier layer adjustments.
Workaround:	None
Issue:	DE3506 Low accuracy warning shows after Save dialog when exporting camera solve data
Platform:	All Platforms
Bug Description:	A low accuracy warning can show after the Save dialog when exporting camera solve data.
Workaround:	None
Issue:	DE3503 Error when clicking on the "-" edge width button for open splines
Platform:	All Platforms
Bug Description:	An error shows when trying to adjust the negative edge width of an open spline.
Workaround:	None
Issue:	DE3502 Quality of the stereo solver depends on the current view

Platform:	All Platforms
Bug Description:	You can get different stereo camera solve results depending on what view you are in.
Workaround:	None

Issue:	DE3498 Edge width minus doesn't compensate edge width plus for complicated layers
Platform:	All Platforms
Bug Description:	Edge curve doesn't match the spline curve and error is shown when adding large edge widths then reducing them again on complicated shapes
Workaround:	None

Issue:	DE3495 Canvas shows garbage when opening a project created by earlier mocha versions based on currently unsupported footage
Platform:	Mac OS and Windows: all
Bug Description:	Some projects created with codecs that were supported in earlier versions of mocha are now loading with artifacts and black frames.
Workaround:	Convert the footage to a different format.

Issue:	DE3494 mocha cannot load some video files that could be loaded by earlier versions.
Platform:	Mac OS and Windows: all
Bug Description:	Some codecs that were supported in earlier versions of mocha are now showing as unsupported.
Workaround:	Convert the footage to a different format.

Issue:	DE3487 Crash when showing a frame that is out of clip range if mocha is launched from the command line with arguments
Platform:	All Platforms
Bug Description:	Loading mocha with command line arguments that set in/out points out of range of the clip will crash mocha if you try to navigate the timeline.

Workaround:	None.
Issue:	DE3480 Endless error message when moving a layer point in unavailable clip
Platform:	All Platforms
Bug Description:	"Failed to open file" error is repeatedly shown when attempting to move layer points in a project with a missing clip.
Workaround:	Relink the clip before modifying layers.
Issue:	DE3475 Extra step in undo/redo history after using Set and +/- edge width actions
Platform:	All Platforms
Bug Description:	An additional undo step is created when performing edge width operations.
Workaround:	None
Issue:	DE3469 Wrong state of "Use Cleanplates Exclusively" checkbox for some clean plate clips
Platform:	All Platforms
Bug Description:	"Use Cleanplates Exclusively" will not become enabled when selecting particular clips in the clean plate dropdown and will not disable when choosing "None".
Workaround:	None
Issue:	DE3466 Sometimes a slave point is unconstrained after constraining a master point
Platform:	All Platforms
Bug Description:	Chaining multiple layers with the vertex attach tool can sometimes unconstrain the points.
Workaround:	None
Issue:	DE3458 The original clip attributes are changed after relinking a clip that inherits attributes from the original clip
Platform:	All Platforms

Bug Description:	If you relink a clip that inherits attributes from the clip you created the project with, the original clip attributes will also be changed.
Workaround:	None

Issue:	DE3457 GUI isn't updated correctly for a layer that was created with Python
Platform:	All Platforms
Bug Description:	Creating or modifying a layer in Python while in the mocha GUI will not immediately update the view or layer controls.
Workaround:	Perform another action such as layer selection in the GUI or switch out and back to the application.

Issue:	DE3442 Extra undo/redo operation is required for changing a master reference point position in the AdjustTrack page
Platform:	All Platforms
Bug Description:	You have to undo or redo twice when changing the Master in AdjustTrack.
Workaround:	None

Issue:	DE3440 Multi-part EXR files containing channel-based multi-view images do not load correctly
Platform:	All Platforms
Bug Description:	If the individual parts of a multi-part EXR file have their own channel-based multi-view images, they do not load correctly into the stream lists.
Workaround:	None

Issue:	DE3437 There is no undo operation for changing corners mode for all layer handles after clicking right mouse button on some handle
Platform:	All Platforms
Bug Description:	Switching to corner mode for all layer handles using right click cannot be undone.
Workaround:	None

Issue:	DE3436 Sometimes "Apply keyframe changes to all views" doesn't work when Überkey mode is selected
Platform:	All Platforms
Bug Description:	In stereo shots, "Apply keyframe changes to all views" can sometimes not work across views with Überkey.
Workaround:	None
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Issue:	DE3429 Timeline changes to spline keys when using timeline controls to adjust or review parameter keys
Platform:	All Platforms
Bug Description:	If you create any parameter keys you cannot review them with the timeline controls without jumping back to spline keys.
Workaround:	None
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Issue:	DE3428 Exported rendered clips to .exr or .sxr formats have wrong height if the project is interlaced
Platform:	All Platforms
Bug Description:	If you use EXR to render out an interlaced project, the render will have the wrong height dimension.
Workaround:	None
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Issue:	DE3427 Layer in/out point fields are too narrow when working with timecodes
Platform:	All Platforms
Bug Description:	Layer in/out point fields are too narrow when working with timecodes so they become hard to see.
Workaround:	Stretch the left panel out further.
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Issue:	DE3426 Tangent parameters are keyframed when creating a bezier layer in Überkey mode
Platform:	All Platforms
Bug Description:	If you create Bezier layers with Überkey on, it will create keyframes only for the tangents.
Workaround:	Create a layer with Autokey.

Issue:	DE3417 "Stabilizer failed to smooth motion parameters" error on the Stabilize page if an open spline is selected and there is some lens distortion
Platform:	All Platforms
Bug Description:	Attempting to stabilize with an open spline layer will throw an error.
Workaround:	Use a close spline layer.

Issue:	DE3409 Crash in opening or creating a stereo project if mocha launched via Remote Desktop
Platform:	All Platforms
Bug Description:	If you try to create a stereo project in mocha over remote desktop, mocha will crash.
Workaround:	None

Issue:	DE3408 Incorrect Bezier handles at spline ends when exporting X-Splines to After Effects
Platform:	All Platforms
Bug Description:	Smoothed X-Splines may export with incorrect Bezier handles when exported to After Effects.
Workaround:	None

Issue:	DE3407 Project out point doesn't change correctly after changing project length in the Project Settings dialog
Platform:	All Platforms
Bug Description:	Changing the project length will not move the outpoint correctly.
Workaround:	Reset or adjust out point manually.

Issue:	DE3401 Prefix field in the Export Rendered Shapes dialog doesn't change according to a selected layer
Platform:	All Platforms
Bug Description:	The prefix for export rendered shapes chooses the top layer rather than the selected layer.

Workaround:	Change the prefix manually.
Issue:	DE3389 Clip has 1*1 dimensions after relinking when opening a mocha project created via python script if it has wrong clip path
Platform:	All Platforms
Bug Description:	If you create a project with a nonexistent clip and try to relink inside mocha, the clip dimensions will be 1*1.
Workaround:	Create a project with the correct clip path in Python.
Issue:	DE3388 Wrong Output Directory in the project that was created via Python with "UTF-8" encoding on Windows
Platform:	All Windows Platforms
Bug Description:	Setting an output directory with Python using UTF-8 encoding can show the wrong directory in mocha.
Workaround:	None
Issue:	DE3370 Clip parameters don't change after relinking a stream of a stereo clips
Platform:	All Platforms
Bug Description:	Relinking stereo streams of different bit depths will not update the actual bit depth in the clip.
Workaround:	None
Issue:	DE3360 Selected Absolute Path isn't saved after switching to Relative Path and back in Preferences
Platform:	All Platforms
Bug Description:	Switching between Relative and Absolute paths doesn't save the Absolute path.
Workaround:	None
Issue:	DE3335 Redundant keyframe is created when switching on the right view after tracking in both views if point mode was changed for a layer point
Platform:	OS X

Bug Description:	Redundant keyframe is created when switching on the right view after tracking in both views if point mode was changed for a layer point.
Workaround:	None
Issue:	DE3330 Unix-style Absolute Output directory path results in a wrong folder being created on Windows
Platform:	Windows
Bug Description:	If you open an OS X project on Windows, accepting the saved absolute folder output directory will create the wrong folder.
Workaround:	Change the Absolute path before accepting the dialog.
Issue:	DE3319 Interlaced parameters are enabled for non-interlaced projects
Platform:	All Platforms
Bug Description:	Interlaced parameters are turned on in progressive projects.
Workaround:	None. They have no effect on the project.
Issue:	DE3315 Cannot create a project based on image sequence with very large frame numbers
Platform:	All Platforms
Bug Description:	You cannot create a project based on image sequence with very large frame numbers
Workaround:	Reduce the frame number index of the sequence.
Issue:	DE3309 "Frame not rendered" error if the right clip is shorter than the base clip for projects created via Python
Platform:	All Platforms
Bug Description:	If you set a right clip to a smaller frame range than the left in Python, an error occurs rather than repeating the frame.
Workaround:	None
Issue:	DE3292 Sometimes changing stereo offset parameters causes changing another parameters
Platform:	All Platforms

Bug Description:	Altering some Stereo Offset shear and perspective parameters may affect other fields in the tab.
Workaround:	None
Issue:	DE3268 Stereo Offset controls have different widths when changing mocha main window size
Platform:	All Platforms
Bug Description:	If you change the window size, the Stereo Offset tab fields do not resize uniformly.
Workaround:	None
Issue:	DE3206 Symbol # is shown in shortcuts instead of Esc on OS X
Platform:	OS X
Bug Description:	When you enter "Esc" into the Keyboard shortcuts, it appears as a symbol instead of "Esc"
Workaround:	None
Issue:	DE3024 Stereo Offset parameters cannot be changed on the frame the layer was created on after changing hero view
Platform:	All Platforms
Bug Description:	If you change the hero view of a layer and try to change its stereo offset parameters nothing happens.
Workaround:	None
Issue:	DE3017 Some MOV clips load without the last frame
Platform:	OS X and Windows: all
Bug Description:	If you load some QuickTime files they will import missing the last frame
Workaround:	Convert the QuickTime to an image sequence and import that instead.
Issue:	DE2971 Wrong zoom windows after relinking footage streams to another dimension
Platform:	All Platforms

Bug Description:	Image dimensions inside the zoom windows change if you relink a different sized piece of footage.
Workaround:	None
Issue:	DE2957 Extra points are moved on the right view in moving some point if "Apply keyframes changes to all views" is switched on
Platform:	All Platforms
Bug Description:	Extra points are moved on the right view in moving some point if "Apply keyframes changes to all views" is switched on
Workaround:	None
Issue:	DE2896 The last selected kind of footage isn't saved in the Export Rendered Shapes/Clip dialogs in mocha
Platform:	OS X and Windows: all
Bug Description:	The last selected kind of footage isn't saved in the Export Rendered Shapes/Clip dialogs
Workaround:	None
Issue:	DE2895 Option checkboxes aren't saved in Export Rendered Shapes/Clip dialogs in mocha
Platform:	All Platforms
Bug Description:	Option checkboxes aren't saved in Export Rendered Shapes/Clip dialogs in mocha
Workaround:	None
Issue:	DE2894 Some settings are saved between Export Rendered Clip and Export Rendered Shapes dialogs in mocha
Platform:	All Platforms
Bug Description:	Some settings are saved between Export Rendered Clip and Export Rendered Shapes dialogs in mocha
Workaround:	None
Issue:	DE2893 Render Mattes settings are not saved in the Export Rendered Shapes dialog in mocha

Platform:	All Platforms
Bug Description:	Render Mattes settings are not saved in the Export Rendered Shapes dialog in mocha
Workaround:	None

Issue:	DE2871 "Undo render" for inserting doesn't work in mocha
Platform:	All Platforms
Bug Description:	Undoing rendering in the Insert module is currently not working.
Workaround:	Delete the rendered clips from the clip tab

Issue:	DE2857 Crash in trying to change extension for rendered clips with Alpha channel to .jpg format in output Setting dialog
Platform:	All Platforms
Bug Description:	If you try to change the extension of a clip with alpha channel to jpg format in the Output settings, mocha will crash
Workaround:	None

Issue:	DE2856 Mocha freezes upon changing extension to ".png" format in Output Setting of a rendered clip on Windows
Platform:	All Windows Platforms
Bug Description:	If you try to change the extension of a clip png format in the Output settings, mocha will freeze
Workaround:	None

Issue:	DE2577 Cannot nudge reference points by buttons after moving them by mouse on the right-view
Platform:	All Platforms
Bug Description:	Cannot nudge reference points by buttons after moving them by mouse on the right-view
Workaround:	None

Issue:	DE2559 There are no right-view keyframes when changing AdjustTrack parameters
Platform:	All Platforms

Bug Description:	You cannot see right-view keyframes when changing AdjustTrack parameters
Workaround:	None
Issue:	DE2426 Clicking in the Layer Controls pane when adding a spline causes spline to close without reverting back to arrow tool
Platform:	All Platforms
Bug Description:	If you click in the layer controls panel while drawing a spline, the spline will finish but the draw tool will remain active yet unusable.
Workaround:	None.
Issue:	DE2420 Playhead continues to advance frames after the Contour shuttle controller jog is released
Platform:	All Platforms
Bug Description:	When using the Contour Design ShuttlePRO jog controller to drive frame advancement, the playhead will over compensate and keep moving after you have stopped rotating.
Workaround:	Rotate the jog slower.
Issue:	DE2344 Canvas errors jump when zooming into the canvas
Platform:	All Platforms
Bug Description:	Zooming in when there is an error message on the canvas will cause it to jump.
Workaround:	None
Issue:	DE2343 Sometimes there are overlapping messages on the canvas
Platform:	All Platforms
Bug Description:	If more than one error is shown on the canvas, they overlap.
Workaround:	None
Issue:	DE2342 Wrong matte clip is removed when deleting a layer
Platform:	All Platforms

Bug Description:	If you import a matte clip to a layer and remove the layer, the imported clip is removed as well.
Workaround:	None
Issue:	DE2316 A master key is set as soon as you switch to AdjustTrack module
Platform:	All Platforms
Bug Description:	If you switch to the AdjustTrack Module, a master key is set immediately.
Workaround:	Set a new master key and delete the old one.
Issue:	DE2307 Floating client license always overrides node-locked
Platform:	All Platforms
Bug Description:	If you have two client licenses and one of them is for a floating license, it will always be used as the license even if it fails to find a server.
Workaround:	Remove the floating client license from the license directory if not in use
Issue:	DE2277 Resizing/moving of GUI when creating a project with small screen resolution
Platform:	OS X
Bug Description:	On very small screen resolutions the mocha interface blinks and adjusts when creating a project.
Workaround:	Use a larger screen resolution.
Issue:	DE2220 Some timeline buttons are enabled if there are no opened projects
Platform:	All Platforms
Bug Description:	On opening mocha or after closing a project, some of the timeline buttons are still clickable.
Workaround:	None
Issue:	DE2203 AdjustTrack reference points have incorrect view when switching active state of a layer

Platform:	All Platforms
Bug Description:	Reference points are shown incorrectly when the active state of the layer is toggled off on one frame then on with another.
Workaround:	None
Issue:	DE2190 Sometimes shape data exported to After Effects "Paste mocha mask" gets corrupted spline points
Platform:	Windows and OS X
Bug Description:	Sometimes shape points can throw spline data out when using "Paste mocha mask".
Workaround:	Find the problem point in mocha and delete or adjust it.
Issue:	DE2182 Imported matte clip shows track mattes incorrectly.
Platform:	All Platforms
Bug Description:	When you import a matte clip it does not show the correct track matte.
Workaround:	None
Issue:	DE2176 Custom modifier keys malfunction in Mac Remote Management (VNC)
Platform:	OS X
Bug Description:	If you open mocha remotely some of the key shortcuts and toggles will not work.
Workaround:	None
Issue:	DE2175 File name in the "Save shape data as..." dialog is empty if a selected layer has the same name as any folder in the last selected directory
Platform:	All Platforms
Bug Description:	If your layer name matches the folder you save your data to, then the filename field will be empty when you go to save shape data.
Workaround:	Rename the folder or layer, or just type a new name.
Issue:	DE2155 Moving tracking keyframes sometimes breaks tracking

Platform:	All Platforms
Bug Description:	Sometimes if you manipulate the tracking keys in the dope sheet, additional tracking for the layer will not work.
Workaround:	None

Issue:	DE2148 Cannot create a project based on QuickTime footage after closing and reopening remote desktop session
Platform:	Windows and OS X
Bug Description:	There is a "Corrupt or unsupported format" error if you try to use QuickTime after closing and reopening a remote desktop session to mocha.
Workaround:	None

Issue:	DE2097 Pan and Zoom keys don't work when tracking
Platform:	All Platforms
Bug Description:	When tracking you can't pan or zoom in the view.
Workaround:	None

Issue:	DE2075 Wrong height for interlaced .mov footage
Platform:	Windows and OS X
Bug Description:	The clip height is listed wrong in the Clip page for interlaced QuickTime footage.
Workaround:	None

Issue:	DE2070 Crash when trying to create a project based on footage in a location has a too long path
Platform:	All Platforms
Bug Description:	Footage in a very long directory path can cause mocha to crash when trying to create a project.
Workaround:	Choose a shorter path.

Issue:	DE2069 Wrong data in the first frame in After Effects after importing camera data from an interlaced project.
Platform:	All Platforms

Bug Description:	Nulls based on the surface corners don't have the same place in AE as they do in mocha at the first frame when using interlaced footage.
Workaround:	Use progressive footage.
Issue:	DE2068 Projects that were unsuccessfully created show in Recent Files
Platform:	All Platforms
Bug Description:	If a project cannot be created successfully due to read only directories or other problems, they still show in Recent Files.
Workaround:	None
Issue:	DE2067 An extra error message is shown if unable to create a project file
Platform:	All Platforms
Bug Description:	There are two messages shown instead of one when a project file cannot be created.
Workaround:	None
Issue:	DE2064 Frame numbers are shown in progress bar instead of fields for projects based on interlaced footage
Platform:	All Platforms
Bug Description:	Frame numbers are shown in the progress bar instead of fields for projects based on interlaced footage.
Workaround:	None
Issue:	r Incorrect fields numbers in progress bar for projects based on interlaced footage
Platform:	All Platforms
Bug Description:	Progress bar shows frames instead of fields when tracking or rendering interlaced footage.
Workaround:	None
Issue:	DE2055 Process icon isn't updated immediately when changing Link To Track dropdown

Platform:	All Platforms
Bug Description:	The process icon does not immediately turn off or on when updating the Link to Track property.
Workaround:	None
Issue:	DE1970 Sometimes the Welcome Screen doesn't contain information about a license error
Platform:	All Platforms
Bug Description:	Sometimes reopening mocha when it has a broken license will not show the license error, only the LE mode message.
Workaround:	None
Issue:	DE1864 "Frame out of range" error in opening mocha from AE with setting frame range in the "New project" dialog
Platform:	All Platforms
Bug Description:	Since frame range is define by the in and out points from AE, setting the frame range can cause problems when loading the project
Workaround:	Don't change the frame range when loading footage to mocha from AE
Issue:	DE1797 Creating a clean plate with a file that has a number on the end will append the number directly
Platform:	All Platforms
Bug Description:	Creating a clean plate with a file that has a number on the end does not separate the number of the clean plate frame from the number in the file.
Workaround:	Rename footage so it does not contain numbers other than sequence numbers.
Issue:	DE1724 Bounding box isn't shown for multiple selected layers if the clicked one was out of range
Platform:	All
Bug Description:	The bounding box isn't shown for multiple selected layers if the first one clicked is out of range
Workaround:	None

Issue:	DE1717 Cannot create a new layer group by clicking on the corresponding icon
Platform:	All
Bug Description:	You can't create a group by itself. You need to select layers first.
Workaround:	Select a layer you want to group before you click the group icon
Issue:	DE1663 mocha is unresponsive after the second attempt to export rendered shapes to H.264 codec
Platform:	OS X and Windows: all
Bug Description:	Sometimes rendering to H.264 the second time will do nothing and mocha will become unresponsive
Workaround:	None
Issue:	DE1649 Undoing adding a layer point, selecting Layer Controls pane and clicking on the canvas cause an error
Platform:	All
Bug Description:	Undoing adding a layer point, selecting Layer Controls pane and clicking on the canvas cause an error
Workaround:	None
Issue:	DE1589 Cannot rename layouts
Platform:	All
Bug Description:	If you rename a layout it does not change the name in the menu.
Workaround:	Restart mocha. The names will be updated.
Issue:	r Wrong layers order after redo including in a group
Platform:	All
Bug Description:	If you group more than 2 layers and undo moving a layer outside of the group, it may not return to the right position
Workaround:	None
Issue:	DE1554 Wrong surface detection for several selected layers

Platform:	All Platforms
Bug Description:	Try to select and move the surface of different layers in a multi-selection it will only let you move one.
Workaround:	Adjust one at a time
Issue:	DE1510 There is no ability to toggle active for several selected layers
Platform:	All Platforms
Bug Description:	While you can apply all other right-click options to multiple layers, you can only apply "toggle active" to the layer you were over when you right clicked.
Workaround:	Choose "toggle active" on separate layers rather than a selection of layers.
Issue:	DE1500 Wrong spline behavior in AdjustTrack
Platform:	All Platforms
Bug Description:	Sometimes using AdjustTrack on a surface will not adjust the spline as well.
Workaround:	None
Issue:	DE1494 Transform tool sometimes interferes with tangents
Platform:	All Platforms
Bug Description:	Sometimes the transform tool can get in the way of adjusting tangents
Workaround:	Turn off transform tool
Issue:	DE1490 There is incorrect importing QuickTime footage with pulldown on windows
Platform:	Windows
Bug Description:	There are some artifacts when playing back QuickTime footage that contains pulldown.
Workaround:	None
Issue:	DE1442 Dope Sheet: Cannot select several blocks of keyframes

Platform:	All Platforms
Bug Description:	You cannot use the shift key to marquee-select multiple blocks of keyframes
Workaround:	None
Issue:	DE1433 An error appears in using Point Insertion tool for multiple selected layers
Platform:	All Platforms
Bug Description:	If you select 2 layers and try to use the point insertion tool you get the error: "Error: Could not find parent contour of the point."
Workaround:	Add points to one layer at a time
Issue:	DE526 OpenEXR error messages
Platform:	All Platforms
Bug Description:	Attempt to open an unsupported EXR format (e.g. image with single channel named "G") results in error message.
Workaround:	None.
Issue:	DE566 Crash when resizing with no docked sidebar panes
Platform:	All Platforms
Bug Description:	mocha crashes after the canvas is resized to zero-height.
Workaround:	None.
Issue:	DE653 Using Ctrl+Z to undo values on the Parameters tab doesn't work
Platform:	OS X and Windows: 32-bit
Bug Description:	
Workaround:	None.
Issue:	DE1241 Zoom window can be manipulated when switched off
Platform:	All Platforms
Bug Description:	If you turn off the zoom window it can still be panned and zoomed into, which can cause problems when it gets in the way and no one can see it.

Workaround: | None.

Hardware Requirements

Recommended Hardware

- Processor: Intel Core i7 or equivalent
- Memory: 16+ GB
- Disk: High-speed disk array or SSD storage
- Graphics Card: NVIDIA Quadro M6000
- Monitor: 1920x1200
- Network: Must have an enabled network adapter (wifi or ethernet)

Minimal Requirements

- Processor: 64-Bit Intel or AMD CPU
- Memory: 4 GB
- Graphics Card: For GPU tracking, must support OpenCL 1.2, for CPU tracking, OpenGL 2.0
- Monitor: Minimum resolution 1200x800 pixels
- Network: Must have an enabled network adapter (wifi or ethernet)

Working with high-resolution footage such as 4K is very demanding on system resources; a system with at least 16 GB of system memory and 2 GB of texture memory should be used.

Software Requirements

Operating System

- **Mac:** OS X 10.9.x or higher, on Intel.
- **Windows:** Windows 7, Windows 8 and Windows 10 on x64.
- **Linux:** Red Hat Enterprise Linux 5&6, CentOS 5&6, or a compatible Linux distribution on x86_64.

Compatible Third-Party Software

mocha Pro 5.2.0 can export tracking and shape data to a selection of third-party visual effects software. These are the versions we have tested:

Application	Version	Track	Shape	Camera	Comments
Adobe After Effects	CS3+	X	X	X	Exporting Corner Pin data to non-English versions of After Effects requires CS4+. Shape export requires mocha shape for After Effects plug-in.
Adobe Premiere Pro	CC 2014+		X		
Apple Final Cut Pro	6.0.5-7.0.3	X	X		Shape export requires mocha shape for Final Cut plug-in.
Apple Final Cut Express	4.0.1	X	X		Shape export requires mocha shape for Final Cut plug-in.
Apple Shake	4.1	X	X		

Application	Version	Track	Shape	Camera	Comments
Apple Motion	3.0.2+	X			Shape export can be done via Final Cut
Assimilate SCRATCH	7.0+	X			
Autodesk Flame	9.5+	X	X		Also known to work with newer releases
Autodesk Smoke	7.0+	X	X		Also known to work with newer releases
Autodesk Combustion	3.0	X	X		
Autodesk Maya	2012			X	
Avid DS	7.6	X			Also known to work with v8.0 and newer
Boris FX BCC plugins		X			Tracking export requires Boris BCC plugin that supports importing of tracking data.
Blackmagic Fusion	5.0X	X	X		
FXhome HitFilm	2.0+	X	X	X	Shape export is available for HitFilm 3 Pro and

Application	Version	Track	Shape	Camera	Comments
					above. Track export is available for HitFilm 4 Pro and above.
Maxon Cinema 4D	13.0+			X	Exports to the MochaBlend plugin also support tracking and shape data to C4D
Quantel eQ, iQ, etc.	4.2	X			Requires mocha Track for Quantel plug-in, available free from imagineersystems.com
SilhouetteFX	5.0+		X		
The Foundry Nuke	6.0+	X	X	6.3v7+	

Community-supplied importers are known to work but are not supported by Imagineer.

Installation

Windows

1. Once the installation file, `mochapro-5.0.2-xxxx.exe`, has been downloaded onto the system, double click the file to begin installation
2. Follow the instructions on screen

OS X

1. Once the installation file, `mochapro-5.0.2-xxxx.dmg`, has been downloaded onto the system double click the application this will open a new window
2. Drag the **mocha Pro 5.2.0** application bundle to the folder where **mocha** will be installed. The conventional place to install applications is in the 'Applications' folder on Macintosh HD.
3. Run **mocha Pro 5.2.0**

Linux

1. Once the installation file, `mochapro-5.0.2-xxxx.x86_64.rpm`, has been downloaded, change into the directory you saved it into. Note that the 'x' in the file name is substituted by the current build number.
2. Install the package with the command: `sudo rpm -Uvh mochapro-5.0.2-xxxx.rpm`
3. rpm may prompt you to install additional dependencies, such as `compat-glibc` or `xrandr`. If these are required, download and install them using the appropriate method for your distribution, for example 'yum' or 'up2date'.

Linux Centos 7

1. Once the installation file, `mochapro-5.0.2-xxxx.x86_64.rpm`, has been downloaded, change into the directory you saved it into. Note that the 'x' in the file name is substituted by the current release build number.
2. Install the package with the command: `sudo rpm -Uvh --nodeps mochapro-5.0.0...rpm`