



mokey | product description

New in **mokey** V3.1

mokey V3.1 Learning Edition now available – free download from www.mokey.com

Announcing the release of **mokey** v3.1, Imagineer continues to expand and improve the **mokey** toolset:

- Do more in **mokey** – analyse and correct for lens distortion with the new **mokey:lens** module
- New export abilities – tracking data can now be output in After Effects format from the **mokey:track2d** module
- New import abilities – import AVI, DV, MPG and MP4 files
- Improved workflow – **mokey** now allows you to define key shortcuts and keyframe parameter values
- Better performance – faster processing and rendering with latest code optimisations
- Easier installation – install to any destination on Mac OS X, Linux and IRIX

Available as a standalone application for IRIX, Windows, Mac OS X and Linux, **mokey** is the platform to use for fast, motion compensated visual effects preparation work.

mokey V3.1 modules

mokey:lens – NEW!

With this module the lens distortion can be analysed and used for tracking and removal to ensure better results.

Also, the lens distortion can be used to distort or undistort images, for example to distort a CG element to match the distortion of the image it is to be inserted into.

Importantly the lens distortion can be animated to handle zoom shots where the focal length and hence the lens distortion changes throughout the shot and also allows the adjustment of the lens distortion where the physical behaviour of the lens cannot be correctly modelled.

Benefits

When working with shots with lens distortion this tool is invaluable:

- Analyse either the actual footage or a shot of a lens grid
- Apply the distortion to other images to ensure consistent lens distortion between composite layers.
- Keyframe lens distortion to ensure correct warping in cases where changes in zoom cause variations in lens distortion.

mokey:track2d

Tracking 2d motion (translation, rotation, scale, shearing and perspective transformations) using the tracker is easy: Simply draw a spline around the object to be tracked and the tracker automatically detects tracking points within the selection.

Enhancements in V3.1

- Preview tracking data and output in After Effects format
- Two new tracking methods: Features and Manual
- Allow selection to be locked while tracking to avoid the need to reposition the selection when tracking e.g. panning shots

The **mokey** tracker has impressed since **mokey** was launched – now the tracking data can be exported in After Effects as well as XML, IFFSE and Shake format, allowing you to use this information for other compositing work.

To make the tracker even more reliable, new tracking methods were added to allow a wider range of shots to be handled. The new 'feature based' tracking approach analysis key features on the plane being tracked and is useful for tracking planes with large perspective motion between frames. The addition of a manual tracking method means that there is always a fallback if other approaches do not work.

Benefits

There are a number of benefits to the 2D planar tracker approach over other solutions:

- It allows you to stay in a 2D environment, even in cases with long camera moves causing perspective distortions, avoiding the complexities of 3D tracking
- 3D camera trackers often have difficulty tracking shots with no parallax effects, such as shots where the camera is dollying into a plane
- As the planar tracker does not rely on a few tracking points being visible throughout the shot, it has clear advantages over traditional 2D point trackers on shots where part of the area being tracked moves out of shot, is out of focus or is otherwise obscured
- Computes translation, rotation, scale, shearing and perspective changes
- EdgeTracker tracks edges of non-rigid objects

mokey:remove

Removing unwanted wires and rigs from film and video clips is traditionally a very laborious task. **mokey's** remove module changes that. It will automatically expose the previously hidden background areas using information from other frames in the clip – whilst also adjusting for any combination of camera and object motion and frame-to-frame lighting variations.

Enhancements in V3.1

- Allow cleanplates to be changed at any time
- Improved illumination modelling

- Fill from any source (e.g. original, clean plate, degraigned plate etc.)

Cleanplates can now be added and changed in a live project.

The 'Interpolate' illumination model has been made more robust, such that it better handles image data with errors in the geometrical alignment.

Benefits

With the ability to reconstruct the background behind an object and hence removing the object from the shot, this tool is a real time save for removing objects such as wires, rigs, scratches, dirt etc. Tools within the module assist to ensure a natural looking result:

- Handles global and local changes in illumination between frames when copying pixels from one frame to another
- Artefacts due to small 3D effects on the background layer can be reduced
- Flood Fill tool for filling in areas of background that can not be reconstructed
- Reconstruct using information from other frames in the clip or cleanplate clip
- Control the range of frames used for reconstruction

mokey:matte

Creating travelling mattes for objects shot against badly lit bluescreens or more generic backgrounds often requires painstaking rotoscoping.

mokey's matte module provides an alternative. Mattes are created using the background information and the motion data, allowing you to easily create mattes for objects shot against virtually any background.

Enhancements in V3.1

- Choice of input (e.g. original, grain reduced plate etc.)
- Basic compositing operation now built in for evaluation of results

With the new input selection mechanism, you can choose which clip to use as the source clip and clean plate clip, to for example remove grain before pulling the matte.

Choice of background to composite the foreground onto now gives you a way of better evaluating the result inside **mokey**.

Benefits

The motion keying approach has several benefits over traditional difference and chroma keying approaches:

- Uses motion information to create matte for foreground objects, resulting in a cleaner matte than that obtainable using difference keyers
- Can generate matte even if the object is not shot against a blue- or greenscreen
- Filters included to remove noise and holes
- Can create regular mattes, edge mattes and inner mattes

mokey:stabilize

This module can compensate for any combination of motion, including translation, rotation, zoom, perspective changes and shearing, warping the image to either fully stabilize the motion of a layer or simply reduce any undesired motion component whilst retaining the underlying camera move.

Stabilization usually creates edges around the frame as the image is transformed to appear stable. Traditionally, these borders have been removed by applying a zoom to the image, which means that resolution is lost. The integrated **mokey:remove** algorithm means that this loss in resolution can be minimized or even totally eliminated by removing these borders using image information from other frames, similar to the way the **mokey:remove** algorithm reconstructs the background behind an object.

Benefits

A number of the benefits stem from the usage of the 2D planar tracker in **mokey**, which has certain benefits over 2D point trackers and 3D trackers.

- Stabilize image relative to any tracked object
- Complete stabilization or adjustable motion smoothing
- Specify one or more key frames to control stabilization
- Control which motion parameters are adjusted; translation, rotation, zoom, shear and/or perspective changes
- Shift, zoom and/or use integrated **mokey:remove** algorithm to remove borders

mokey:grainsurgery

Grain management is a major concern when manipulating film footage. To give you the best tools, Grain Surgery technology from Visual Infinity, Inc is now available as a **mokey** module.

Benefits

- Remove Grain uses a sophisticated, patent-pending process that minimizes loss of sharpness. The tool can also be used to remove CCD noise and compression artefacts
- Add Grain has presets for common photographic stock and controls for grain size, intensity and color. The grain can be manipulated in each channel separately and animated smoothly at any frame rate
- Match Grain extracts the grain structure from an image and allows this to be duplicated and applied to another image. This can be done either fully automatically or manually, and the noise in the target frame is compensated for

Interface

Mokey's easy to learn, cross platform interface ensures that you will be able to learn how to operate the tool very quickly and use it on the platform of your choice without having to relearn.

Enhancements in V3.1

- User configurable key shortcuts

- All parameters are now keyframeable
- Installation directory no longer predefined on Linux, Mac OS X and IRIX

Import/Export

Enhancements in V3.1

- QuickTime files with more than 8 bits per channel now supported

Features

- Color Space: Import in linear or log, no colorspace transformations required
- Image Formats: Cineon, DPX, TGA, TIFF, SGI, JPEG, PNG, RGB, QuickTime (8, 10 or 16 bits per channel)
- Lens distortion: Compute using the new **mokey:lens** module, specify manually or import from Realviz .rz3 file generated by MatchMove®
- Resolution independent
- Supports film, progressive scan and interlaced video
- A **sparks**® conduit plug-in for transferring clips between your IFFFSE system and **mokey** is shipped with the IRIX version. This allows the IFFFSE operator to transfer a clip to **mokey** and start the application from within IFFFSE. Then, once work has been completed in **mokey**, the result clips are saved and imported into IFFFSE via the same plug-in
- **mokey** can transfer clips directly from/to the workspace of any Quantel generationQ system on the same network as the workstation running **mokey**. This feature is integrated seamlessly

into **mokey's** file I/O dialogs and operation requires no intervention from the generationQ system operator

System Requirements

The following are the minimum recommended system requirements for running **mokey**:

Operating Systems

- Windows 2000, NT and XP
- Mac OS X v10.2 or later
- Red Hat Linux 7.2 and later
- Irix 6.5.11 or later

Disk

- 100 MB

Memory

- 256MB

Processor

- 500 MHz Intel Pentium
- 400 MHz PowerPC G4
- 300 MHz MIPS IV

Graphics Card

- Must support OpenGL

For working with HD and film, it is recommended that a multi-processor system with at least 1GB of RAM is used.

Peace of Mind

With a rapidly developing product like **mokey** it is important to stay up-to-date. With a **mokey** service agreement you get a host of benefits, including:

- All upgrades to modules owned, free of charge. Note that new modules will still have to be purchased at list price.
- Support directly from Imagineer Systems.
- Priority access to beta version of new releases.

License Options

- Nodelocked or floating license
- Hardware keys available for **mokey** for Windows

Training

Imagineer Systems Ltd actively support companies and individuals wishing to enhance their **mokey** skills. Please contact us for information about training packages.

Availability

Through your local reseller or directly from Imagineer Systems Ltd.



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