Motion Inspector / Motion Pad

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Software Version: **1.05.05**

This document contains information supplementary to the online Help and the documentation of Motion Inspector™ and Motion Pad™; it includes such things as newly added function, hints, tips, restrictions and corrections.

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Minimum requirements

The minimum system requirements to use the software with IDT cameras are:

- Microsoft Windows 7, 8, 8.1 or 10.
- Apple MAC OS 10.10 (Yosemite) and newer.
- 4 GB of RAM.
- 200 GB Hard Disk Drive or greater (recommended).
- Video card capable of 32-bit color output.
- Monitor capable of 1280 x 1024 or larger resolution.

MAC OS X prerequisites

The MAC version of Motion Viewer requires that **ffmpeg version 4.0** and newer is installed on the computer. The simplest way to install ffmpeg on MAC is with Homebrew.

Install Homebrew

- From the Applications folder, open the Utilities folder and select “Terminal”
- Copy and paste the following line:

/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"

Install ffmpeg

From the same Terminal prompt, type the following text.

brew install ffmpeg

Homebrew will install ffmpeg with many of the common codecs including H.264.

If Homebrew is already installed on your computer, you may have to upgrade it.

To do so, type the following from a Terminal window.

brew update

Then type the following to check if ffmpeg should to be upgraded.

brew outdated

If ffmpeg appears in the list, type the following and upgrade it

brew upgrade ffmpeg

Make sure that the version 4.0 or newer is installed

brew info ffmpeg

Case History

The list below includes new Motion Inspector features, improvements, bug fixes, and other relevant information. It is arranged in descending chronological order.

Version 1.05.05

1. MI: Fixed option to manually save to SSD (if camera firmware supports it).
2. MI: removed language dialog, added language selection to general options.
3. MI: Remember playback speed and loop button state.
4. MI: added menu item to open manual.
5. MI: added new option after acquisition (automatic start playback).
6. MI: improved lens parameters interface.
7. MI: improved font selection and auto resize. Adapt font to large screen resolutions.
8. MI: improved test of Motion Trigger condition.
9. MP: added support for JL Cooper SloMo and CyanView GWY controllers.
10. MP: reworked layout, added Motion trigger, Auto-Exposure and Look Up table configuration.
11. MV: improved interface, added scroll bars.
12. MV: separate white balance in 3D raw file view.

Version 1.05.04

1. All: Added support for CCM 1540 and 3525.
2. MP: iOS version, fixed window size issues with iPhone X.
3. MP: improved motorized lens control.
4. MI: added trigger hot key.
5. MI: added manual SSD save (only cameras that supports it).
6. MI: moved motorized lens control to a bar.
7. MI: added option to make segments in camera DDR (disable it if MI is used with Motion Studio).
8. MI: enable/disable playback controls when segments are loaded/unloaded.
9. MV: added stereo window to playback 3D sequences.

Version 1.05.03

1. MP: fixed white balance in POV cameras.
2. MP: disable SDI overlay and enable SDI only mode in POV cameras.
3. MP: Added camera Rest button.
4. MI: when download folder name is modified by user, set the same name for images.
5. MI: Synchronize SDI parameters in any segment.
6. MI: Show max fps or exposure in touch pad.
7. MI: added lens support for Os-cameras, XStream. Added motorized zoom support.
8. MI: added paint parameters support for XStream camera.
9. MV: read correct thumbnails from removable SSD or SD-card segments.

Version 1.05.02

1. MP: improved multi-camera support.
2. MP: added general configuration and camera synchronization pages.
3. MP: added master-slave synchronization mode and support for TC-Hubs.
4. MP: added label to show camera temperature. Added white balance support.
5. MP: added support for Nx camera series.
6. MP: fixed support of CrashCam-Mini with firmware older than September 2017.
7. MI: display the correct max speed when an extended ROI is selected.
8. MI: improved Xstream PCI support.
9. Both: use the network name to identify a network adapter, not the MAC address.

Version 1.05.01

1. Added Motion Pad application.
2. Added color temperature slider.
3. Added automatic detection of Master/slave is 3D is on.
4. Fixed crash when BROC length is larger than total length (trimmed sequences).
5. Added option to change ROI before converting RAW sequences and images.

Version 1.05.00

1. Added support for DNG image format.
2. Added support for IRIS and focus control of motorized lenses in O camera.
3. Added support of download of calibration file for X-Stream PCIe cameras. Improved support for those cameras.
4. Added support for Crash Cam mini (1510, 1520 and 3510).
5. Added support for reading images from removable SSD or SD-cards connected with USB readers.
6. Added option to display images with OpenGL.
7. Fixed Look Up Tables management in raw files.
8. 3D mode: added a parameter to set an offset in master/slave sync mode. Added master camera detection routine and stereo widget.
9. AE: if exp is shown in shutter angle, show auto-exposure values accordingly.
10. Show download percentage when the display mode is SDI only.
11. Display exposure in proper format in session info.
12. Hide playback speed if playback is off.
13. When a raw sequence is converting, disable back button, image process button and save button.
14. Added parameter to save clipped images in batch mode (instead of the full sequence).
15. Avoid crash when a sequence is converted into MOV format and the Abort button is pressed.
16. Improved thumbnails in conversion preview.
17. Render raw images with multi-core support in MAC and Windows.
18. When a sequence is closed, save the values of start, stop and current frame. When the sequence is open, restore those settings.
19. In batch mode, output pixel depth is like input, if supported.

Version 1.04.03

1. Correct resize of controls in monitor with large resolution.
2. Restore original pixel depth larger than 8/24 when MI is closed.
3. Removed default color table.
4. Added cross-hair tool for 2D and 3D.
5. Added more file formats for direct download (TIF, JPG, PNG).
6. Added new Iris display in radial widget.
7. The user may edit the bottom parameters (Pixel depth, White balance, LUT, Gamma) also in playback mode.

Version 1.04.02

1. Added support for Os3.
2. Fixed display of labels in radial widget.
3. Fixed detection of available memory size in BROC mode.
4. Updated German manual.

Version 1.04.00

1. Added support for saving and loading camera layouts (configurations).
2. Added wheel for the configuration of exposure, frame rate, frames and pre-trigger.
3. Added display of playback speed.
4. Flip and rotate are moved to the Image configuration panel.
5. Added support for 3D raw files. Added option to invert master camera sync out.
6. Added support for PCI cameras.
7. Added camera enumeration filter.
8. Removed thumbnails from playback bar.
9. Sort RAW files and cameras before showing the thumbnails.
10. Added selection of destination folder before converting a raw file.
11. Added gamma and LUT to the viewer.
12. Added full screen option (F11).
13. Improved the management of multiple segments in DDR and SSD.

Version 1.03.02

1. Added “Wave-forms” profile to histogram.
2. Auto-exposure: added configuration of target intensity, speed, minimum and maximum exposure values.
3. Motion-Trigger: removed the center button. The Reset button resets the reference values, not the ROI.
4. Added default white balance. Removed light source color tables.
5. Fixed crash on monitors with large resolution when the thumbnails of an acquisition are created.
6. Image configuration: removed CFA filter.
7. White Balance: calculate white balance when the camera is not in live mode.
8. Advanced configuration: removed sharpen threshold and reset button. Added CFA filter.
9. Added support for SDI to Crash Cameras.

Version 1.03.01

10. Added “Save all” option and button.
11. Correct management of segments in “SSD Backup” mode.
12. Improved Motion Trigger.
13. Correct update of pixel depth in histogram.

Version 1.03.00

1. Added support for Os-series (DDR and SSD backup).
2. Added multi-language support.
3. Improved the quality of the display of zoomed images.
4. Improved ROI management.
5. Improved playback speed of image sequences.

Version 1.02.02

1. Added support for O-series (DDR only).
2. Improved MT display.
3. Added keyboard support on Touch-Pad.
4. Use mouse wheel to zoom image.
5. Use left and right arrow keys to navigate playback images and raw files.

Version 1.02.01

1. Improved MT and AE region of interest validation and configuration.
2. Fixed multi-camera look up table issues. Fixed multi-camera configuration.
3. Avoid the assignment of values 1028 and 1029 to local enumeration port. The effect may be disruptive.

Version 1.02.00

4. Added display of IRIG time and battery status for NX-Air.
5. Added rotation configuration, look up table E and user configurable look up table.
6. Added support for float numbers in the touch pad.
7. Added configurable playback speed, display of current frame when the handle is dragged and loop playback button.
8. Fixed zoom calculation for HD cameras (NX7 and NX8).
9. Added warning message before deleting images and before closing the camera.
10. Fixed a bug in ROI edit. The correct frame rate is not restored when the ROI edit is closed.
11. Added Low Light option to the iOS version.

Version 1.01.01

1. Added option for activating and deactivating the diagnostic trace.
2. Added the advanced dialog box for advanced image parameters and current conditions calibration.

3. Removed the advanced button. CFA filter and DCS have been moved to the Image configuration.
4. The MAC OS/X version of MI has been built in 64 bit version.

Version 1.01.00

1. Improved interface. Added buttons with white stripe on the left. Added buttons with multi-color text.
2. Added option for automatic download of images after trigger.
3. Adapted code for iOS version (Motion inspector for iPad).
4. Added support for regular ROI on 7 and 8 models.
5. Improved display optimization when the connection is wireless.
6. Improved the GUI of Resolution and image configuration.
7. Fixed issues of Master/Slave configuration.
8. Added support for the display of raw files generated by all camera models.
9. When the camera is closed, hide the histogram and reset camera button check boxes.
10. Correct refresh of Live image in Master/Slave mode.

Version 1.00.05

1. Added configuration of “image flip” parameter.
2. Added support for pre-defined color tables (color balance).
3. Added configuration of Lookup Tables.
4. Correct display of NX, NR and N models.
5. Fixed conversion of mono images into TIF and PNG file types.
6. Fixed issues of Master/Slave configuration.
7. Correct refresh of Live image in Master/Slave mode.

Version 1.00.04

1. Added support for Y8/NX8 camera models.
2. Added conversion batch.
3. Correct management of left and right arrows in MI.
4. Fixed extra region of interests for Y3C and N3S1/S2.
5. Fixed crash in MAC version of MI when the region of interest is changed.
6. Disable zoom when images are downloaded in jpeg format.
7. Fixed display of images when jpeg encoding is on.

Version 1.00.03

1. Improved the refresh speed of zoomed images.
2. Added camera icon to enumerate cameras (removed the menu item).
3. Added back button to close camera and return to camera enumeration view.
4. Added keyboard support to touchpad.
5. Added support for 1016x1016 resolution to Y4/N4 cameras, to upsized extra region of interests and new N5/Y5 ROI support.
6. Added support for 9/27 bit pixel gain (upper, lower).
7. When camera memory is full the options are listed as buttons.
8. Improved the support of jpeg download.
9. Disable HDMI during RAW download and avoid issues.
10. Added support for multi-touch zoom.
11. 3D: added selection of view (A, B or AB) in playback layout.
12. 3D: vertical and horizontal tiled images are generated with full size source images.

Version 1.00.02

1. First release