INFINITY Software v6.0.0

What's New

The following list summarizes the highlights for this 6.0.0 release.

This release incorporates improvements to the installation package, device driver updates, and some nice additions to the INFINITY ANALYZE package. The locations of some application-related files have been altered to better accommodate Windows 7 and VISTA permissions.

Camera Device Drivers

- Improvements to the INFINITY1-2CB exposure controls to allow this framerate-centric camera to respond more like an exposure-centric camera.

INFINITY Capture & TWAIN interface

- Changed location of Last Settings file to overcome write protection issues
  On VISTA & Windows 7 – C:\Program Data\Twain_32\INFINITY
  On Windows XP – C:\ \Documents and Settings\All Users\Application Data\TWAIN_32\INFINITY\

INFINITY ANALYZE

- Now includes dynamic window zoom for both live preview and captured images.
- New Cell Counting menu item available on the Measure menu allows for interactive thresholding and quantitative results based on pixel intensities
- The image title bar is updated with the image file name as soon as it has been saved
- Micrometer bar text and length are now associated to the active calibration
- User Manual has been fully updated to reflect all menus and dialogs
- User interface is now available in 7 different languages
- Help menu provides direct access to video tutorials available on the Lumenera website
- New Annotation menu item creates a bitmap overlay image from displayed graphics.
- All auxiliary windows and toolbars can be interactively enabled / disabled from the Help -> Settings dialog, on a new tab.
- Photometry auxiliary window displays pixel intensity distribution for measured areas.
- The camera presets file (containing calibrations) is now located in this folder location:
  On VISTA & Windows 7 – C:\users\[*User Name*]\AppData\Roaming\INFINITY ANALYZE\

On Windows XP – C:\Documents and Settings\[*User Name*]\Application Data\INFINITY ANALYZE\

KNOWN ISSUES

- Frame rate of the INFINITY1-2CB is limited to 10fps, but can be extended to 15fps in INFINITY Capture, although vertical bands may be visible and impact image quality.
- Frame rate of the INFINITY1-2CB is limited to 5fps in INFINITY ANALYZE, but will be increased in a subsequent release.
- INFINITY ANALYZE does not currently take advantage of the modified 'exposure-centric' behavior that has been implemented for the INFINITY1-2CB camera, and included with INFINITY Capture. This will be addressed in a subsequent release.

Infinity Software V5.0.6 Release

The following list summarizes the highlights for this 5.0.6 release.

INFINITY ANALYZE

- Added the default previewing video mode for the INFINITY2-5 camera.

Camera Drivers

- Improvement of the exposure and gain properties control.

Infinity Software V5.0.5 Release

The following list summarizes the highlights for this 5.0.5 release.

Camera Drivers

- Added support for the new INFINITYLiteB cameras.
- Improve support for the new INFINITY1-2B cameras.

INFINITY Software V5.0.4 Release

The following list summarizes the highlights for this 5.0.4 release.

Camera Drivers

- Added support for the new INFINITY4-11 cameras
- Added support for the new INFINITY2-5 cameras.
- Added support for the new INFINITY1-2B cameras using the SOI image sensor.

Upgrade to new API version 2.1.0.241

- Improve Windows 7 support.

INFINITY Software V5.0.3 Release

This section describes all the additions and updates we have made to the latest release of the software.

Camera Drivers

- Added CIM3 support for INFINITY2-1 and INFINITY2-2 cameras.

INFINITY Software v5.0.2 Release

The following list summarizes the highlights for this 5.0.2 release.

Installation and Camera Drivers

- The installation process has been revised to include a screen prompting for the INFINITY camera to be disconnected from the PC prior to continuing.
- New driver file updates are included to correct an issue with the INFINTY4-11 and Lw11057-SCI models that could result in corruption of the live video preview. Currently does not support external signaling of start of frame in Video mode (GPO4: Video SoF).
- Corrected an issue where pixels would not fully saturate at default gain for the INFINITY1-5 model. In addition, the following Still Mode properties have been enabled:
  - STILL_EXPOSURE
  - STILL_GAIN
  - STILL_GAIN_RED
  - STILL_GAIN_GREEN1
  - STILL_GAIN_GREEN2
  - STILL_GAIN_BLUE
  - STILL_STROBE_DURATION

- Corrected issue for the INFINITY4, Lu330 camera models with driver signing for Windows Vista. Also improved quality of Brightness, Contrast and Gamma in 16-bit mode.

INFINITY ANALYZE

- ANALYZE Settings files have been relocated to the standard Windows folder location for Application Data, providing better compatibility with future releases of the O/S. This new location will be different on XP and VISTA platforms:

  For XP:
  > [Drive:]\Documents and Settings\All Users\Application Data\INFINITY ANALYZE\

  For VISTA:
  > [Drive:]\ProgramData\INFINITY ANALYZE\Settings

- A problem has been rectified with saving of new camera Presets. The original release of INFINITY 5.0, introduced a problem resulting in ANALYZE failing to store the camera white balance settings. When a Preset was restored, the appropriate color gains were not being set on the camera.
- An incorrectly imposed restriction on number of decimal places allowed in the Measure Options dialog has been removed. Entry of any value less than 2 was not permitted in the first releases of the 5.0 version.
- An enhancement has been added to the micrometer bar placement allowing the previously selected location to be used again in the current image. The option is presented in the pop-up dialog after using the mouse to select a location in the image. This allows for the micrometer bar to easily be placed in a consistent location on all images, if desired.
- Italian language files have been added to the installation, and the additional entry may now be selected from the View -> Language menu option.
- The ANALYZE Advanced Features USB-Key is now being distributed as a driver-less device, making for a simpler installation supported across more O/S platforms. The Release 5.0.2 of INFINITY ANALYZE is required to take advantage of this new style of USB key.

INFINITY Software v5.0.1 Release

Includes a correction to the driver for the INFINITY1-3 model. This patch release is identical to the 5.0.0 release in all respects, for INFINITY Capture and ANALYZE applications.

INFINITY Software v5.0.0 Release

Release Highlights

The following list summarizes the highlights for this 5.0.0 release. Details can be found below, with even more information available in the Release Notes, and the product documentation.

- 64-bit drivers are now available for all INFINITY cameras on Windows platforms
- ANALYZE now includes a FULL SCREEN mode
- Preview grid pattern artefacts have been eliminated from ANALYZE
- Bitmap Overlay added to Live Preview and Captured images in ANALYZE
- CAPTURE can now export camera settings to a named ANALYZE preset
- ANALYZE now offers a Simple layout for demos and first time operators

Camera Drivers

- Added support for 64 bit Windows XP and Windows Vista operating systems

- All drivers are digitally signed for Windows Vista operating systems.

- Added support for new revision of INFINITY2-2 cameras.

INFINITY CAPTURE

- New function to export current camera settings into an INFINITY ANALYZE preset.

- Added additional 75% zoom mode to preview zoom control.

- Improved AVI filenames when converting a RAW AVI file to a standard AVI file.

INFINITY ANALYZE

Changes to the Layout

- On initial start-up of the software, the first-time user will be presented with ANALYZE shown in a simple configuration.

- New options to quickly modify the application layout are provided as **Simple Mode** and **Enable All**, available from the **View Menu**.

- A new **Full Screen** display function has been added. This feature allocates the maximum amount of the display for either the live preview or for captured images. The application can switch in and out of Full Screen mode by using the **View menu**, or with a simple press on the **<Esc>** key

- The contrast of the status bar has been improved by making the background color black

- Some toolbar icons used for image positioning have been removed to reduce clutter. These seldom used navigation functions are now accessible only from the **View menu**, as items labelled as **Center** and **Corner**.

- The **Field Menu** entry formerly labelled as **Vector Arithmetic** has been changed to **Math**

- The buttons labelled **Video On/Off** have been removed from the Capture Control panel, providing more space

- The sequence of Control panels (from top to bottom) has been rearranged for greater ease of use.

- The **Measure Menu** has undergone a transformation to make the most commonly used options readily accessible and to improve the ease of use for common measurement tasks. The **Calibration** and **Micrometer** functions have been moved onto this menu.

- Revisions to the **Micrometer** function allow the bar and the text to be re-positioned anywhere on the image, by placing them in the annotation layer.

- The distance or length measurements tool formerly labelled as **Caliper**, has been changed to **Point to Point**

- A new option has been added to the **File menu** called **Close All Images**. This feature pops-up a single confirmation dialog prior to closing down all displayed images in the working area.

- Warnings and information messages now alert the operator when the **Field Group** memory is consumed, or if the number of fields have been used.

Camera performance and controls

- The **Camera Control** panel now includes a new option to provide a **Continuous Auto Exposure** function.

- In previous revisions of the ANALYZE package the live preview from certain high resolution camera models (notably the INFINITY2-3, INFINITY1-5, and INFINITY4-11) would often produce a grid pattern appearance that varied based on the display window dimensions. While this artefact was observed only in the live preview and not on captured images, it was an undesirable characteristic. Modifications have been made to the display capabilities to help eliminate or minimize this problem.

Other functional changes

- A **Bitmap Overlay** function has been added to both the Live Preview display and to Captured images.   This function is accessed using the **File Menu → Bitmap Overlay…**

- The newly designed **Grid Options** function allows for the origin and size of the grid spacing to be easily defined. A new tool allows for the operator to specify the grid parameters using the cursor position on the captured image.

- It is now possible to change the units of measurement without re-calibrating.

- A new auxiliary window called **Photometry** has been added to ANALYZE. It reports pixel intensity values for any defined measurement areas.