

Nikon

**NIS-Elements L
(Lite)**

**User's Guide
(Ver. 1.22)**

Thank you very much for choosing Nikon.

This manual explains installation and use of the NIS-Elements L. For trouble-free operation, read this manual before using the program.

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Be sure to read the instruction manuals for the microscope and PC you plan to use with the NIS-Elements L.

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- * Operation cannot be guaranteed on all computer models. For further information, contact your nearest Nikon representatives.

★ Application software "NIS-Elements" is not intended to be used for medical purposes.

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1. Introduction

NIS-Elements L is a tablet software supplied with a Nikon camera. This touch-screen application enables to manually set all the microscope acquisition parameters and fully control the connected camera.

Key features of the software are:

- camera live observation
- still image and video acquisition
- loading images from an external storage
- annotating
- measuring
- viewing graticules
- adding a scale
- comparing using the split view
- full screen and fit screen viewing
- image information and histogram viewing
- saving to an external (USB) storage

2. Installation and Startup

2.1 Software Installation

Execute the installation file and follow the instructions. Do not connect the camera to the tablet device before NIS-Elements L installation is finished.

2.2 License Activation

Before the software can be used, its license has to be activated either online or offline.

2.2.1 Online Activation

1. Connect your device to the Internet.
2. Start NIS-Elements L for the first time. Software license activation window opens.
3. Enter your 10-digit activation code into the edit box. You can find this number on a plastic card supplied with the camera.
4. Tap **Activate**.

2.2.2 Offline Activation


1. Start NIS-Elements L.
2. Enter your 10-digit activation code into the edit box.
3. Tap **Activate**. The software tries to connect to the server but fails.
4. Tap **Save request** to create a .c2l fingerprint file.
5. Copy the .c2l fingerprint file to a computer with working Internet connection.
6. Go to the Software License Activation web page [<https://license.laboratory-imaging.com/activation/>] and upload the .c2l fingerprint file.
7. Enter your 10-digit activation code into the edit box. You can find this number on a plastic card supplied with the camera.
8. Tap **Submit** to create a license file.
9. Copy the license file back to the device running NIS-Elements L.
10. Double-tap on the license file to activate the product.

2.2.3 License manager


License manager is a separate utility which can be used for online or offline software activation and license updates and transfers. If you uninstall/reinstall the operation system, please be sure to transfer your license using this utility. If you forget to transfer the license, you will not be able to use NIS-Elements L later on because the license information was removed from your computer.

To run the *License manager*, go to your installation folder and run the `licmgr.exe` file. The utility main window consists of the top and side toolbar and the main area where the license content is shown.

License ID Shows the list of licenses connected to the computer.

Copy License ID  Copies the license ID number to clipboard.

Refresh list of license keys  Refreshes the license key list.

Activate software license key  This button creates a new software license. Once the button is tapped a wizard opens. The user fills in the *Activation ID* and NIS-Elements L activates.

Create Request Creates the license update request file (.c2l).

Apply Update Loads the license update file (.l2c, v2c, h2h) into the current license.

Transfer Opens a wizard requiring the request file from the computer to which the license is being transferred.

Update & Synchronize Updates the current license with the license found in the license database on the license server.

Send to safe This option requires Internet access and is used to save the license to a remote storage. Enter a unique *Name* of the license, add a *Password* and tap Next.

Get from safe This option requires Internet access to transfer the license identified by the unique *Name* and *Password* from the remote storage. Once the transfer is finished, the licensed software can be used on the current computer.

Copy Info Copies the license content information into clipboard.

Close Closes the *License manager* utility.

2.2.3.1 License transferring

To transfer a license from one computer to another or to the same computer after reinstalling the operation system, use one of the following methods:

Online method This method requires Internet access on both computers (computer from which the license is extracted and computer to which the license is being transferred).

1. Run the *License manager* on the computer from which the license will be transferred.
2. Tap Send to safe.
3. Enter a unique *Name* and *Password*.
4. Tap *Next* to save the license.
5. Go to the computer to which you want to transfer the license and run the *License manager*.
6. Tap Get from safe.

7. Enter the *Name* and *Password* set in step 3 and tap *Next* to finish the license transfer.

Offline method

1. Run the *License manager* on the computer to which the license will be transferred.
2. Tap *Create Request* and save the .c2l request file.
3. Run the *License manager* on the computer from which the license will be transferred.
4. Tap **Transfer** and insert the .c2l request file saved in step 2.
5. Enter the path to which the .h2l transfer file will be saved and confirm it.
6. Find any computer connected to the Internet and go to the License Key Transfer web page [<https://www.nis-activation.com/transfer/>], tap **Choose File** and insert the .h2l transfer file generated in the previous step.
7. Tap **Create H2H File** and save it to an external storage.
8. Go to the computer to which the license is being transferred, tap **Apply Update** and insert the h2h file generated in the previous step to finish the transfer.

3. Basic Workflows

3.1 Connecting Camera

Connect the camera after NIS-Elements L is installed on your tablet device:

1. Connect the camera to your device using the supplied USB cable.
2. Switch the camera ON.
3. Start NIS-Elements L.

3.2 Starting the Software





When the license activation is done, the camera can be connected and turned on and the software can be started by tapping on the NIS-Elements L icon on the desktop or in the main Windows menu.




Note

Some functions may not work correctly after recovery from the sleep mode. Please turn the sleep mode off.


3.3 Gestures



To control the program effectively, the following touch screen gestures can be used.

	Tap (single click)	Works as a selection, turns a function on/off
	Double tap (double click)	Runs the <i>Fit Screen</i>  function
	Pinch in/out (scroll mouse wheel)	Zooms the image in or out

	One finger swipe in any direction	Moves the zoomed-in image around
	One finger swipe left/right	Opens the next/previous file in the current folder. If the image is zoomed in, the gesture will only move the image. Use the <i>Fit Screen</i>  button to zoom it out.


3.4 Creating Objective Presets

You can create a number of presets which will represent different combinations of objective magnification and zoom. Whenever the objective or the zoom factor is changed on the microscope, the corresponding preset shall be selected via the *Objectives*  button to ensure that the captured image will have correct calibration. To create a preset:



1. Tap on the *Objectives*  button in the vertical panel. A window opens.
2. Tap on the *Setup* tab in the window.
3. There is a stripe of preset positions at the top of the window. Tap one of the positions to select it. The number of available positions can be adjusted in general options ( *General Options*)
4. Specify parameters of the optical path:
 - objective name
 - objective magnification
 - *Zoom* magnification
 - *Relay Lens* magnification
5. Tap the Default button to calculate the calibration from the inserted values.

3.5 Calibration

Having the objective presets calibrated correctly is important in order to ensure realistic measurement results. There are two ways to assign a calibration to an objective preset:




Automatic calibration The calibration is calculated from the values specified in the *Objectives*  window. See 3.4 Creating Objective Presets.

Manual calibration The default calibration can be overwritten manually:

1. Open the *Objectives*  panel, tap on the *Setup* tab.
2. Select the calibration preset which corresponds to the hardware which is currently in use and tap the **Recalibrate** button.
3. Insert a calibration sample to the microscope. It can be a specialized calibration slide or a ruler for low-magnification objectives.
4. A window opens containing three drawing tools. Select one of them, e.g.: .
5. Draw a distance of known length on the calibration sample.
6. Enter the distance to the window which appears. Do not forget to select the correct units.
7. Tap **OK** to finish the calibration.






3.6 Running Live Image

To run a live image from the camera:

1. Open the *Camera*  panel and set the parameters of the camera image in the *Advanced* tab.
2. Tap *Live*  to start the camera live signal.
3. Control the parameters of the camera in the *Basic* tab of the *Camera*  panel.



3.7 Measuring




To measure a feature in the image:

1. Use the *Live*  button to run the live image or open an image (*Open* ) to be measured.
2. Tap the  button next to the *Measure*  button to reveal the list of measurement tools.
3. At the bottom of the menu select color and font size for future measurement objects.
4. Select the required measurement tool. Once you do that, the menu will be closed and the *Measure*  button gets activated.
5. Tap into the image to start measuring.

3.8 Annotating






To add annotations to the image:

1. Use the *Live*  button to run the live image or open an image (*Open* ) on which the annotation will be placed.



2. Tap the  button next to the *Annotate*  button to reveal the list of annotation tools.
3. Select color and line thickness for the intended annotation.
4. Select the required annotation tool. Once you do that, the menu will be closed and the *Annotate*  button gets activated.
5. Tap into the image to create the selected annotation.

3.9 Comparing

The screen can be split into halves, the left half showing the live image and the right half showing the frozen image or a file.

1. Tap the  button next to the *Split*  tool.
2. Select either the *Live + File*  or the *Live + Frozen*  tool.
3. Use the *Split*  button to activate the split mode selected in the previous step.

3.10 Saving

To save an opened or captured image together with any annotations or measurements, simply tap the *Save*  button in the top toolbar or select the  *Save As* command.

4. Notes on Use and Restrictions

- Video recording

The recording time in MP4 videos depends on the performance of your tablet PC, image resolution and frame rate.

If this time is exceeded, live streaming may stop or application may forcibly terminate.

NIS-Elements L

Manual

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