

# Documentation Nikon SLR Control for LabVIEW

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This document describes the usage and installation of the “Nikon SLR Control for LabVIEW” version 2.5.

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## 1 General Information

The „Nikon SLR Control for LabVIEW“ allows the control of Nikon SLR cameras via USB. The library is based on the SDK from Nikon and offers capturing images as well as reading and writing camera properties.

## 2 System Requirements

### 2.1 Operating System

The library can be used on Windows 7, 8 and 10 with LabVIEW 32 and 64 bit.

### 2.2 Supported Cameras

The following cameras are supported:

- D3
- D3S
- D3X
- D4
- D4S
- D5
- D90
- D300
- D300S
- D500
- D600
- D610
- D700
- D750
- D800/D800E
- D810
- D810A
- D850
- D5000
- D5100
- D5200
- D5300
- D5500

D5600  
D7000  
D7100  
D7200  
D7500  
DF  
1V3

## **2.3 LabVIEW**

The library can be used with LabVIEW 2010 to 2018 in 32 and 64 bit.

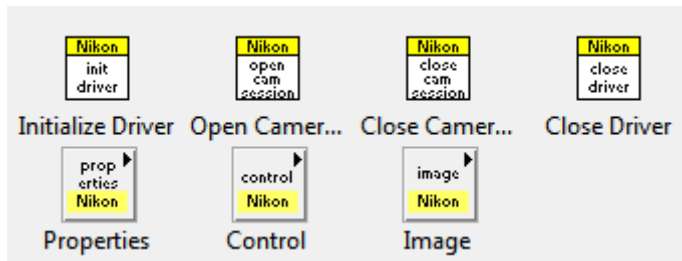
## 3 Installation

### 3.1 LabVIEW Library

The installer installs files directly to the LabVIEW directory (..\program files\National Instruments\LabVIEW xx\..)

The library is installed into the intr.lib folder in the subfolder "\_Ackermann Automation\Nikon SLR Control".

The functions palette is installed under Instrument Drivers.



A shortcut to examples and documents is installed in the Start Menu in Programs -> Ackermann Automation -> Nikon SLR Control LabVIEW

### 3.2 LabVIEW Examples

The examples are installed in the LabVIEW examples folder

"..\Program Files\National Instruments\LabVIEW xx\examples\Ackermann Automation\ Nikon SLR Control ".

### 3.3 Tools And Documents

All further tools and documents can be found in:

"..\Program Files\Ackermann Automation\ Nikon SLR Control "

## 4 Programming

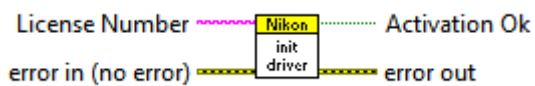
This chapter describes the principals of programming with the library. The detailed VI information can be found in the help file.

### 4.1 Init Driver

The function “Init Driver” has to be called before all other function calls.

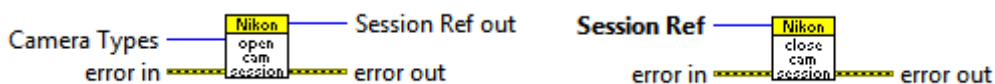
This function initializes the driver and does a license check.

If no valid license number is entered, the library works in demo mode for 10 minutes.



### 4.2 Camera Session

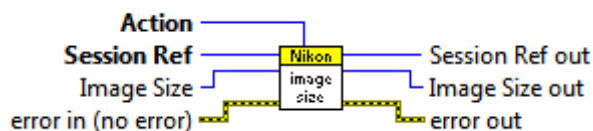
For each camera a session has to be opened. The camera type has to be selected.



### 4.3 Camera Properties

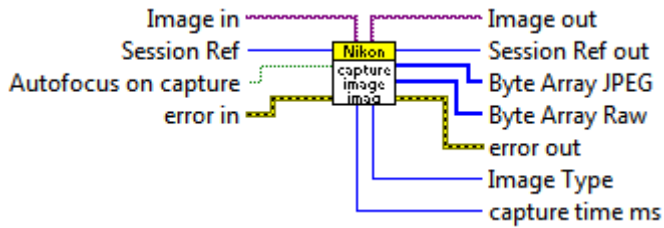
The camera properties can be accessed with a set of different functions depending of the nature of the property. The available properties are camera dependent.

The majority of camera properties is accessed with set/get VI for a property.

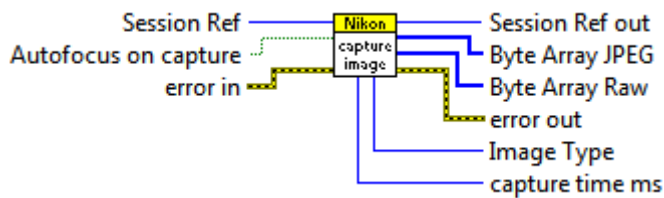


## 4.4 Image Capturing

An image is captured by executing the capture image function. The image is returned as byte stream and as IMAQ type.

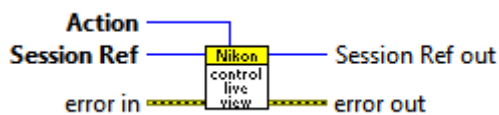


Capturing without IMAQ type is a faster way of capturing.



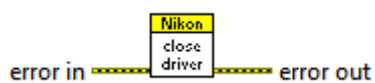
## 4.5 Live View

The camera Live View can be displayed in LabVIEW by using the Live View functions.



## 4.6 Close Driver

The function "Close Driver" has to be called to free resources.



## 5 Support

For support contact:

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