

NANOSIGHT NTA SOFTWARE: v3.4.4 SOFTWARE UPDATE NOTIFICATION

Introduction

This document details the release of the NanoSight NTA (Non-Sample Assistant): version 3.4.4 software for the LM10, NS300 and NS500 particle tracking analysis systems. It covers software issues fixed and new features introduced. This information is required to perform a risk analysis to determine if the software should be installed. Installation and upgrade instructions are provided.

Please note, this software release contains important security and compliance updates. As such, we strongly recommend that you upgrade to this version of the software at your earliest convenience.

Overview of new features

Below is a summary of the new improvements and features of NTA 3.4.4 compared to NTA 3.4. More details and instructions on the new features are available in the appendices at the end of this document.

Capture

• USB camera support.

Other

- Improved logging. Instrument log files will no longer be overwritten at the start of each day.
- Improved handling of corrupt/unreadable video files.
- New script command for automated/unattended data export.
- Resolved HASP compatibility issues in Windows 10 (Version 2004) and later.





Comparison of features between NTA versions

Feature	NTA 2.3	NTA 3.0	NTA 3.1	NTA 3.2	NTA 3.3	NTA 3.4	NTA 3.4.4
Interface							
SOPs/Script Generator	No	Yes			Yes		
Quick Load of Recent Scripts	No	Yes			Yes		
Quick Load of Recent							
Experiments	No	No		Yes			
Pause/Step Frame Processing	Yes	No		Yes			
Capture							
Automatic Focus	No	No		Yes (m	onodisperse	d only)	
Automatic Camera Level	No	No			Yes		
Live Analysis	Yes	No			No		
EDR Capture	Yes	No			No		
USB Camera Support	No	No		No		Y	es
Algorithms							
High Resolution Size Algorithm							
(FTLA)	No	Yes		Yes (speed optimi	ised)	
Vibration Correction	Yes	Yes			Yes		
Graphs							
Graph Overlays	Maximum 10	No		Unlimi	ted, with gro	ouping	
Scatterplot Overlays	Maximum 2	No		Unlimi	ted, with gro	ouping	
Graph Overlay Exports	Bitmaps	No		Bit	maps and PD)Fs	
Custom Graph Colours	No	No			Yes		
Data Manipulation							
Exclusion Regions	Yes	No			Yes		
Selected Concentration	Yes	No			Yes		
Additional							
Draw 'All Tracks'	Yes	No			Yes		
Optional CFR Feature	No	No	No	Yes	Yes	Y	es
Windows 10 Compatible	No	No	No	No	No	Y	es



Recommended System Requirements

The recommended computer system requirements for running NTA 3.4.4 software are highlighted in table 1 below. The software can be operated using Windows 10 (Pro and Enterprise). It has been fully tested using Windows 10 Pro (64 bit) (v2004). Any computer currently running a previous version of NTA 3.0 or later will be able to run NTA 3.4.4. A minimum of 1GB free hard disk space is recommended for installation.

Feature	Specification
Processor Type	Intel Core i7 Processor (Quad Core, 4th generation or higher) or AMD Ryzen 5 (Quad Core, 1 st generation or higher)
Graphics Processor	Integrated or PCIe graphics card – supporting Open GL Version 1.5 and DX11 (Minimum)
Memory (RAM)	16GB
Hard Disk Storage (OS)	1GB of free space recommended, solid state storage preferential
Storage (Data)	2TB of Internal, external, NAS or cloud storage recommended
Display Resolution	1680 x 1050 or higher
Connectivity ¹	Up to 3x USB 2.0 ports, wired or wireless LAN
Camera Connectivity ²	1x USB 3.0 port (sCMOS USB) or 1x IEEE 1394b port (sCMOS Firewire)
Operating System	Microsoft Windows 10 (Pro or Enterprise) 64 bit – build 2004

Table 1: Recommended system requirements for the NanoSight software.

- ¹ List is not exhaustive
- NS300 Rev.I onwards is shipped with Hamamatsu sCMOS USB 3.0 camera and does NOT require a firewire port
 Most older instruments use a Hamamatsu Firewire or Marlin Firewire camera and require 1x IEEE1394b port

Supported Languages

• English

Software Installation Procedure

This section will explain how to update your NTA software to the latest version.

Instructions are provided for new installations, or upgrades from NTA 3.0 and above.

It is assumed that you have authority to install or update software within your facility. It is also assumed that you have Administrator rights for the system upon which the software is installed, as this is a requirement of the installation process. If you do not have this authority, please consult with your I.T. support department before proceeding.



Required or Supplementary Files

The software, manuals and related documentation should be packaged with this document. All supplementary files can be also downloaded from the Malvern Panalytical website (www.malvernpanalytical.com). Please contact your local distributor or helpdesk@malvernpanalytical.com for information on how to obtain ancillary manuals, specifying the serial number of the instrument and camera information, if available.

Technical Support

For questions regarding the operation of the software consult the latest software quick start guide (included with software).

If you have any questions or problems with this installation, or if the software does not work as expected, please contact in the first instance your local representative.

As a backup you may contact <u>helpdesk@malvernpanalytical.com</u> or phone on +44 (0) 1684 892456 during UK office hours (9am to 5pm). Please supply the instrument serial number, camera type if known, and details of any peripheral equipment.

Installation Instructions

In order to install the latest NTA software version, you will need the installer file called 'NanoSight NTA 3.4.4 Installer.exe'. Previous versions of software will not need to be removed during this process as multiple software versions are able to coexist on the same computer. Ensure that sufficient space is available on the computer (approximately 1GB of space is recommended for installation).

If the installer is contained in a zipped file, extract to a convenient location and double-click **NanoSight NTA 3.4.4 Installer.exe** to start. The installation Wizard will then run through initial installation of NTA 3.4.4 presenting the dialog window below.





1. Select **Next** and review the license agreement. To continue you must confirm acceptance by selecting the appropriate option.

🕼 NanoSight NTA 3.4 - InstallShield Wizard	×
License Agreement	4
Please read the following license agreement carefully.	
Malvern Panalytical Ltd	<u>^</u>
Software Licence Agreement	
THE COPYRIGHT AND OTHER INTELLECTUAL PROPERTY RIGHTS IN THI SOFTWARE AND ITS ASSOCIATED DOCUMENTATION ARE OWNED BY MALVERN PANALYTICAL AND/OR MALVERN PANALYTICAL'S LICENSORS. PLEASE READ THE TERMS OF THIS SOFTWARE LICENCE AGREEMENT ("LICENCE") WHICH IS EITHER ENCLOSED IN THE SOFTWARE PACKAGE AND/OR PRESENTED ELECTRONICALLY WHEN ACCESSING THE SOFTWARE. BY CLICKING THE "AGREE/ACCEPT"	S V
I accept the terms in the license agreement Print	
\bigcirc I <u>d</u> o not accept the terms in the license agreement	
InstallShield	
< <u>Back</u> <u>Next</u> > Cance	1

- 2. Selecting Next in this window will install NTA 3.4.4 Administration rights may be required.
- 3. After installation is complete select Finish.

The NTA 3.4.4 software has now been installed on the computer. This will open the NTA Installation Manager to check further details of your individual system.

·			
			Re-Scan
Licensing Subsystem Installed: (v	rer: 19.3.1.66130)		[:
Provisional Product Feature Code	e Installed		
NTA Feature Code Activated			
Hardware Dongle Ready			
Nodel Selection			7
Model Selection			
NS300			
NS300			
Nodel Selection NS300			
Vodel Selection NS300 Camera Drivers Scientific CMOS USB	Remove	Info]
Addel Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire	Remove	Info]
Addel Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Remove Install/Remove	Info Info Info]
Addel Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD	Remove Remove Install/Remove	Info Info Info	
Vodel Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8	Remove Remove Install/Remove Install/Remove	Info Info Info Info Info	ОК

The NTA Installation Manager controls security, model selection and camera drivers. When upgrading from NTA 3.0, NTA 3.1, NTA 3.2, NTA 3.3 or NTA 3.4, all license features should show a green tick with the correct instrument model selected.



Some users may see a message instructing you to uninstall and reinstall the Scientific CMOS drivers. If so, click **Show Camera Drivers** and click **Install/Remove** next to Scientific CMOS, follow instructions on screen, restart the computer, and then open the installation manager from the start menu and install the Scientific CMOS drivers again.

Selecting **OK** will close the dialog box and complete the installation of NTA 3.4.4.

Uninstall Procedure

The software can be uninstalled using the standard Add/Remove feature in the Windows Control Panel.

Known Issues

The following software bugs have been discovered within the software and will be investigated as part of a future release. Please follow the suggested work-around for each issue when operating the software.

lssue	Work Around	Comment
If the computer sleeps during camera recording, measurements will not be completed and upon waking the camera driver and further recordings will have issues.	A PC restart is required. Switching off automatic sleep/hibernate is strongly recommended when running NTA.	High risk issue
The user interface does not fully support scaling on high DPI displays in Windows 10.	It is recommended to set display scaling to 100% in the display settings for your monitor and sign out or restart the PC before running NTA. Using scaling greater than 100% may result in some user interface elements overflowing the available screen space.	Low risk issue
Windows updates may have an adverse effect on data integrity during overnight and unattended runs.	It is recommended to coordinate with IT administration and/or disconnect from the internet to minimize the risk of Windows updates occurring while the system is in use to prevent critical data loss.	High risk issue
Software may appear to respond slowly to commands.	It is recommended to at least weekly to close the software, reboot Windows and power cycle the NTA instrument, for optimal system performance.	Low risk issue
Installation of antivirus software can affect NTA performance.	It is recommended to coordinate with IT administration to minimize the risk of antivirus scans or updates occurring while the system is in use to prevent critical data loss.	High risk issue
NTA Sample Assistant does not properly install over non-Sample Assistant and visa-versa.	Recommend uninstalling the previous version before switching between Sample Assistant and non-Sample Assistant.	Low risk issue
Software crash during processing when special characters are included in base file name.	Recommend avoiding the use of special characters (%, #, etc.) in the base file name.	Medium risk issue



Prime Fluidics last stage runs forever when using the LVFC with NS500.	Once the priming routine has reached staged three, it will carry on endlessly, displaying stages four, five, six etc. Recommend aborting the priming sequence at this point. The LVFC will be suitably primed.	Low risk issue
Wrong guidance image for NS500 empty fluidics - introduced in NTA 3.3.	Recommend leaving all tubing connected for emptying/flushing the fluidics.	Observation
Selecting too many experiments can lower the displayed camera frame refresh rate	Note. This is a display issue only and does not affect the frame rate of captured video data.	Observation
NTA sometimes freezes when detecting hardware.	Recommend restarting the PC. This issue only occurs when the system has sat idle for long periods of time and Windows disconnects the USB connection.	Intermittent observation
HASP licensing subsystem installation needs installing twice.	When installing the HASP licensing subsystem, the process will end but you will be asked to install the licensing subsystem again. Click OK to repeat the process.	Intermittent observation



Appendix I: New Installation of NTA 3.4.4

Installing the software on a <u>blank computer</u> to run with the NanoSight instrument, you will need to:

- 1. Ensure the PC specifications match those given in the **Recommended System Requirements** section of this document.
- 2. Ensure system settings are copied across. Follow the instructions below for a basic install and then follow directions for backing up and transferring settings below.
- 3. Obtain the instrument specific configuration file called Nano.INI see appendix IV for more information



Note: The Nano.INI can be exported from your old PC. It should also be backed up on the local PC and a copy is retained by Malvern Panalytical

In order to install the software, you will need the installer file called 'NanoSight NTA 3.4.4 Installer.exe'.

Ensure that sufficient space is available on the computer (at least 1GB of space is recommended for installation).

If the installer is contained in a zipped file, extract to a convenient location and double-click **NanoSight NTA 3.4.4 Installer.exe** to start. The installation Wizard will then run through initial installation of NTA 3.4.4 presenting the dialog window below.

🖟 NanoSight NTA 3.4 - InstallS	hield Wizard X
₹	Welcome to the InstallShield Wizard for NanoSight NTA 3.4
	The InstallShield(R) Wizard will install NanoSight NTA 3.4 on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< <u>B</u> ack <u>N</u> ext > Cancel

1. Select Next, and review and accept the terms of the license agreement





- 2. Selecting Next in this window will install NTA 3.4.4. Administration rights may be required.
- 3. After installation is complete select Finish



The NTA 3.4.4 software has now been installed on the computer. This will open the NTA Installation Manager to check further details of your individual system.



L'annaire.			
			Re-Scan
 Licensing Subsystem Installed: (v 	er: 19.3.1.66130)		
Provisional Product Feature Code	Installed		
NTA Feature Code Activated			
🗸 Hardware Dongle Ready			
Model Selection NS300]
Model Selection NS300 Camera Drivers Scientific CMOS USB	Remove	Info]
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire	Remove	Info Info]
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Remove Install/Remove	Info Info]
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD	Remove Remove Install/Remove	Info Info Info	
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8	Remove Remove Install/Remove Install	Info Info Info Info	OK

The NTA Installation Manager controls security, model selection and camera drivers.

Appendix II: Activation process

When the NTA Installation Manager begins, the Licensing features will not be ticked, and will have a red cross next to them as shown below. Follow the instructions below to activate NTA.

Installation Manager		
Licensing Licensing Subsystem Provisional Product Fi NTA Feature Code Av Hardware Dongle No	Installed: (ver: Not found) eature Code Installed :tivated Present (optional, to run experiments)	Re-Scan
Model Selection [LM10-LM12 Show Camera Drivers	Installation Progress Licensing subsystem not present. Click OK to install the Seferent files. OK Cancel	
		OK Cancel



1. Selecting **OK** will run the NTA license installer *Sentinel Run-time Environment Installer*. After completion the *Licensing Subsystem* and *Provisional Product Feature Code* will be installed.

Licensing Licensing Subsystem Installed: (ver: 15.0.1.36539) Provisional Product Feature Code Installed NTA Feature Code Activated Hardware Dongle Not Present (optional, to run experiments)	Re-Scan
Model Selection	
Show Camera Drivers	
Show Camera Drivers	or

 Selecting Re-Scan again will begin the activation process for the NTA Feature Code. If the computer is connected to the internet select Yes for online activation. If the computer is not connected to the internet, select No and offline activation will be started.

Installation Progress	x
NTA feature code not activated. Are you connected to the Internet? (YES will attempt online activation, NG	D will allow activation via an emailed file.)
	Yes No Cancel

Online Activation

For online activation an activation code is required. Type the product key into the box and click **Activate**. This can be found on a **printed sheet** inside the first page of the system manual delivered with the instrument and is also stored in a text file on the local PC in the folder **C:\NTA Backup**. If you do not have an activation code contact <u>helpdesk@malvernpanalytical.com</u> to request a quotation (*part number NTA0003*).



	A SE MENT	Aladdin
Type your Product Key in t	OR the "Product Key" field and click "/ license activation.	Activate" to initiate full
-		

Offline Activation

Select **Collect Information** to generate a <u>c2v</u> file. Save the file to disk using the name of your organization, this is for our reference.

Transfer this file onto an internet enabled computer and email this file (a *.c2v file) along with the **activation code** to Malvern Panalytical at <u>helpdesk@malvernpanalytical.com</u>. The email should include <u>NanoSight key activation</u> in the subject line and your contact details to allow us to identify you.

A corresponding file will then be generated by Malvern Panalytical (*.v2c file) which should be transferred back to the machine you wish to activate the NanoSight software on.

Select the Apply License Update tab and browse to the *.v2c file sent to you and click **Open**. You will then be informed of a successful activation and be able to start NanoSight NTA 3.4.4 from the desktop (note the first loading of this may take several minutes).



🥐 HASP SRM RUS	HASP SRM RUS
Collect Key Status Information Apply License Update Manual Product Activation - this program activates your installation in circumstances where there is no direct access to the Internet. This process requires that you create a small C2V file and return it to NanoSight (perhaps via a memory stick onto your email workstation). NanoSight can manually process this file during office hours and return a V2C file which will activate your installation. Collect Information: Use this function to create the C2V file Apply License Update: Use this function to activate using the V2C file sent back by NanoSight	Collect Key Status Information Apply License Update
Collect information	Apply Update

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Note: HASP Activation product keys are not transferable between computers.

Appendix III: Installing camera drivers:

If running the software with NanoSight hardware, the correct camera driver requires installing. This will be for CCD, EMCCD or Scientific CMOS cameras. This is controlled in the *NTA Installation Manager* window. If you are unsure which camera(s) your system has, please contact the helpdesk, providing the serial number of the instrument.



A Installation Manager (ver 3.4.000)			2		
Licensing	er 19 3 1 66130)		Re-Scan		
Provisional Product Fosture Code	Licensing Subsystem Installed: (ver. 19.3. 1.66130)				
	installed				
VTA Feature Code Activated					
Hardware Dongle Ready					
Model Selection NS300]		
Model Selection NS300	Remove	Info]		
Camera Drivers Scientific CMOS USB Scientific CMOS FireWire	Remove Remove	Info Info]		
Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Remove Install/Remove	Info Info Info]		
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD	Remove Remove Install/Remove Install/Remove	Info Info Info]		
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8	Remove Remove Install/Remove Install/Remove	Info Info Info Info	OK		

Note: Camera drivers are not required if you are using the software for analysis only

Scientific CMOS (Hamamatsu) USB

1. In the camera driver box click the Install/Remove button adjacent to Scientific CMOS USB.

A Installation Manager			>
Licensing			
V Licensing Subsystem Installed: (v	er: 24.2.1.105205)		Re-Scan
Provisional Product Feature Code	Installed		
🗸 NTA Feature Code Activated			
- Hardware Dongle Not Present (or	otional, to run experim	ients)	
Model Selection			
Model Selection			
Model Selection	Install	Info]
Model Selection	Install	Info]
Model Selection	Install Install/Remove	Info Info]
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD	Install Install Install/Remove	Info Info Info	
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8	Install Install/Remove Install/Remove Install	Info Info Info Info Info	OK



2. This will then run the InstallShield Wizard for DCAM-API driver.

3. Click Next.





4. Accept the license terms by selecting the appropriate box and click Next.



5. Click **Install**, it may take a few minutes to install the driver.

DCAM-API Drivers for USB		×
Ready to Install the Drivers		
	Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.	
InstallShield	< Back Instal Cancel	



6. Select **Finish** at the next dialog window to complete the process.



Scientific CMOS (Hamamatsu) FireWire

- 1. In the camera driver box click the Install/Remove button adjacent to Scientific CMOS Firewire.
- 2. Select **Yes** if the camera described matches the system in the next window.

Licensing Licensing Subsystem Installed: (ver: 24.2.1.105205) Provisional Product Feature Code Installed NTA Feature Code Activated Hardware Dongle Not Present (optional, to run experiments) Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8 Install Info Install Info Scientific CMOS Orca-Flash2.8 Install Info Scientific CMOS Orca-Flash2.8 Install Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Bantor	NTA Installation Manager			×		
Licensing Re-Scan Icensing Subsystem Installed: (ver: 24.2.1.105205) Re-Scan Provisional Product Feature Code Installed NTA Feature Code Activated Hardware Dongle Not Present (optional, to run experiments) Model Selection Model Selection NS300 Camera Drivers Install Scientific CMOS USB Install Scientific CMOS FireWire Install CCD / CCD Large Sensor Install/Remove Install Info Scientific CMOS Orca-Flash2.8 Install NS200 Bantor OK	Linguing					
Provisional Product Feature Code Installed NTA Feature Code Activated Hardware Dongle Not Present (optional, to run experiments) Model Selection Model Selection NS300 Camera Drivers Scientific CMOS USB Install Info CCD / CCD Large Sensor EMCCD Scientific CMOS Orca-Flash2.8 Install Install OK	Licensing Licensing Subsystem Installed: (v	er: 24.2.1.105205)		Re-Scan		
NTA Feature Code Activated Hardware Dongle Not Present (optional, to run experiments) Model Selection Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor EMCCD Install/Remove Info Scientific CMOS Orca-Flash2.8 OK	V Provisional Product Feature Code	Installed				
Hardware Dongle Not Present (optional, to run experiments) Model Selection NS300 Camera Drivers Scientific CMOS USB Install Info CCD / CCD Large Sensor Install/Remove Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Bantor OK	🗸 NTA Feature Code Activated					
Model Selection NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire Install Info CCD / CCD Large Sensor Install/Remove Info EMCCD Scientific CMOS Orca-Flash2.8 Install Info OK	 Hardware Dongle Not Present (op 	otional, to run experim	ients)			
Scientific CMOS USB Install Info Scientific CMOS FireWire Install Info CCD / CCD Large Sensor Install/Remove Info EMCCD Install/Remove Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Bantor Install Info	Model Selection NS300]		
Scientific CMOS FireWire Install Info CCD / CCD Large Sensor Install/Remove Info EMCCD Install/Remove Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Bantor Install Info	Scientific CMOS USB	Install	Info			
CCD / CCD Large Sensor Install/Remove Info EMCCD Install/Remove Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Baptor Install Info	Scientific CMOS FireWire	Install	Info			
EMCCD Install/Remove Info Scientific CMOS Orca-Flash2.8 Install Info NS200 Bantor Install Info	CCD / CCD Large Sensor	CCD / CCD Large Sensor Install/Remove Info				
Scientific CMOS Orca-Flash2.8 Install Info OK NS200 Bantor	EMCCD	EMCCD Install/Remove Info				
NS200 Bantor Install Info	Scientific CMOS Orca-Flash2.8	ОК				
Cancel	NS200 Raptor	Install	Info	Cancel		





3. This will then run the InstallShield Wizard for DCAM-API driver.



4. Select **Next** and accept the license terms by selecting the appropriate box and clicking **Next**. Finally, select **Install**, it may take a few minutes to install the driver and then select **Finish** at the next dialog window to complete the process.



CCD / CCD Large Sensor (Marlin)

1. In the camera driver box click on the Install/Remove box adjacent to CCD / CCD Large Sensor.

NTA Installation Manager			×		
Licensing Licensing Subsystem Installed: (ve Provisional Product Feature Code NTA Feature Code Activated Hardware Dongle Not Present (op	er: 24.2.1.105205) Installed ptional, to run experim	ients)	Re-Scan		
Model Selection					
Camera Drivers]		
Scientific CMOS USB	Install	Info			
Scientific CMOS FireWire	Install	Info			
CCD / CCD Large Sensor Install/Remove Info					
EMCCD	EMCCD Install/Remove Info				
Scientific CMOS Orca-Flash2.8	Scientific CMOS Orca-Flash2.8 Install Info				
NS200 Raptor	Install	Info	Cancel		

- 2. This will open the AVT FirePackage Installation Wizard.
- 3. Click Next and continue the installation keeping all defaults.





4. In the final window leave the Run Driver Installer box ticked before selecting Finish.



- 5. If the **Driver Provider** column is not currently set to **Intek**, set the Switch To column to **Intek** and click **Apply**.
- 6. If the Driver Provider column is currently set to Intek, click ReInstall.
- 7. After the driver installation has completed you will need to restart the computer.

y 8				
IEEE1394 Host Contro	ders -			
Manufacturer	Ve	ndor ID / Device ID	Driver Provider	Switch To
IEEE1394 Chip Manu	facturer 0x1	101 / 0x5811	Intek Minister	-
6.01	- CALL	101700300	MCIOSON	Microsoft 1394 Bus Driver
Description	Generic OHCILyrev 1394 (intek)	00313_3011102069	cv_r04er010er60610r0	
Description	PCI bus 4, device 2, function 0			
Location				
Location: Driver Details				
Location Driver Details Description	Genetic OHCILpror1394 (intek)	1		
Location Driver Details Description Date (mm-dd-3999):	Genetic OHCILpro-1394 (intek) 6-23-2010			
Location Driver Details Description Date (mm-dd-yyyy) Version	Genesic OHCILyros1394 (intek) 6-23-2010 2-8-0.1	I		



EMCCD (Andor Luca)

1. In the camera driver box click on the Install button next to EMCCD.

NTA Inst	tallation Manager (ver 3.4.000)			×	
Lice	ensing				
\checkmark	Licensing Subsystem Installed: (v		Re-Scan		
~	, Provisional Product Feature Code	eInstalled			
~	NTA Feature Code Activated				
_	Hardware Dongle Not Present (op	otional, to run experin	nents)		
Car	mera Drivers]	
Car		Romovo	Info		
×	Scientific CMOS FireWire	Install			
	CCD / CCD Large Sensor	Info			
	EMCCD Install/Remove Info				
	Scientific CMOS Orca-Flash2.8	OK			
	NS200 Raptor	Info	Cancel		

2. This will initiate the *Andor SOLIS setup wizard*. Follow the installation process selecting **Luca** in the camera type's window.



3. Continue the installation process restarting the computer to complete the installation.



Appendix IV: Backing up and transferring system settings

NTA 3.4.4 stores and accesses important system settings for the NanoSight instrument using the Windows registry. If the registry becomes corrupt or is deleted, the operating system is reinstalled, or the software is transferred to a new computer, these settings will need to be replaced before using the software with the instrument.

If new hardware is purchased, or your instrument is recalibrated, modifications to these settings may be required.

The NTA 3.4.4 installation includes a user interface to manage these settings. It is called **NTA Admin Tool** and can be accessed from the start menu or via **Preferences–Configuration Settings...** within the NTA 3.4.4 software. The tool requires administrator rights to run.

Admin Tool				×
Admin Tool v 3.4.000			NS500 Pump Config	NS500 Zeta Positions / Settings
Model No. NS300	•		Swap Pumps	Focus Stage
Camera Configuration	_		Reverse Pumps	Zeta 1 100 100
	Camera Calibration fo	r Laser Module:	PRIME 300 secs	Zeta 2 200 200
Show Option in NTA			EMPTY 300 secs	Zeta 3 300 300
	166 Green	166 166	LOAD 60 secs	Zeta 4 400 400
CCD Large Sensor	166 166	166 166	ADVANCE 200 msecs	Zeta 5 500 500
I EMCCD	166 166	166 166	FLUSH 90 secs	Zeta 6 600 600
I scmos	166 165	164 163	Flow Cell	Calibration 1.000000
□ NS200	166 166	164 165	Type Standard 💌	Stage Gradient 0.000000
			Old style top plate (0)	Stage Intercept 0.000000
	Concentration Setup	for Laser Module:	i New style top plate (1)	- Temperature Control
F	Red Green	Blue 488 Blue 405	Filter Wheel	
S	etup Setup	Setup Setup	Show Filter Name	0.100000 °C
			Filter 1	Valid For 5 secs
	_			"ON" Gradient 1000
Show Laser Trigger (sCMOS	only) 🖌 Default T	rigger ON when hidden	Iv Filter 3	"ON" Intercept 0
Remove Line Noise (sCMOS	only, where applicable)		Filter 4	"OEE" Gradient
Show 10X Objective Choice	(legacy)		Filter 5	
			Filter 6	"OFF" Intercept
Hardware Options Present	Safety Timeouts	s / Relay Control		TEC Gain 12.700000
Filter Wheel	Heater / Co	oler 15 min		TEC Integral 2.810000
Rotary Valve	Camera / La	aser 5 min	Svringe Pump	TEC Deriv 0.703000
DLS unit	Use Laser R	elay (NS300)	Model Tag OEM	TEC Invert 1
Gilson AutoSampler	Gilson AutoSam	pler Option	Load Pate 1000	· · · · · · · · · · · · · · · · · · ·
	Needle Up Maxi	mum 2120		DLS
		,	Withdraw Rate 1000	Scattering Angle
Load or Save All Settings using a .I	 INI text file Rele	oad Current Settings		Use OK to write values to the registry
i is male i				
Load from INI Save to IN	VI .	Load Current		OK Cancel

To back-up the current settings click **Save to INI** (bottom left) and save the file in a convenient location on disk.

To reload settings from a back-up (e.g. on a new computer or re-installed operating system) click **Load from INI** and locate the backed-up file on disk.



After loading or changing any settings, click **OK** to save the settings. Clicking **Cancel** will not save any changes to current settings.

Should changes be required after new hardware is purchased or recalibration has taken place, Malvern Panalytical will provide information on the changes required.



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