

NANOSIGHT NTA SOFTWARE: v3.4 (PSS0235-16) SOFTWARE UPDATE NOTIFICATION

Introduction

This document details the release of the NanoSight NTA software version 3.4. It covers the upgrade and installation instructions, as well as additions and improvements in this release of the software.

Overview of new features

Below is a summary of the new improvements and features of NTA 3.4 compared to NTA 3.3. 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.





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
Interface						
SOPs/Script Generator	No	Yes		Y	es	
Quick Load of Recent Scripts	No	Yes		Y	es	
Quick Load of Recent Experiments	No	No		Y	es	
Pause/Step Frame Processing	Yes	No	Yes			
Capture						
Automatic Focus	No	No	Yes (monodispersed only)			ly)
Automatic Camera Level	No	No	Yes			
Live Analysis	Yes	No		Ν	10	
EDR Capture	Yes	No		Ν	10	
USB Camera Support	No	No		No		Yes
Algorithms						
High Resolution Size Algorithm (FTLA)	No	Yes	Yes (speed optimised)			1
Vibration Correction	Yes	Yes		Y	es	
Graphs						
Graph Overlays	Maximum 10	No	U	Inlimited, v	vith groupir	ng
Scatterplot Overlays	Maximum 2	No	Unlimited, with grouping		ng	
Graph Overlay Exports	Bitmaps	No	Bitmaps and PDFs			
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	Yes
Windows 10 Compatible	No	No	No	No	No	Yes



Recommended System Requirements

Any computer currently running NTA 2.3, NTA 3.0, NTA 3.1, NTA 3.2, NTA 3.3 will be able to run NTA 3.4. A minimum of 1GB free hard disk space is recommended for installation.

Feature	Specification
Processor Type	Intel Core i7-7700 Processor (Quad Core, 3.60GHz, 8MB Cache, Intel HD Graphics 630)
Memory (RAM)	16GB (2x8GB)
Hard Disk Storage	2TB Hard Drive
Display Resolution	1680 x 1050 or higher
Connectivity	IEEE 1394 adapter card, Serial port Adapter card
Operating System	Windows 10 64 bit

Supported Languages

• English

Software Installation Procedure

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

Instructions are provided on the next page for upgrades from NTA 2.3 (with a single laser module) and above. For new installs or for upgrades from software versions prior to NTA 2.3, follow instructions in *Appendix II*.

It is assumed that you have authority to install or update software within your company's SOPs. If you do not have this authority please consult with your I.T. support department before proceeding.

It is assumed that you have Administrator rights for the computer. This is required by the installation process. It is not necessary to remove the previous version of software to install and run this software release.

Required or Supplementary Files

The software, manuals and related documentation should be packaged with this document. If you do not have these, you can download them from the Malvern Panalytical website (<u>www.malvernpanalytical.com</u>). Please contact your local distributor or <u>helpdesk@malvernpanalytical.com</u> 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 distributor.



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 software, you will need the installer file called 'NanoSight NTA 3.4 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 Installer.exe** to start. The installation Wizard will then run through initial installation of NTA 3.4 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	Х
License Agreement	
Please read the following license agreement carefully.	
	<u> </u>
Malvern Panalytical Ltd	
Software Licence Agreement	
THE COPYRIGHT AND OTHER INTELLECTUAL PROPERTY RIGHTS IN THIS 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"	~
I accept the terms in the license agreement Print	
$\bigcircI\underline{d}o$ not accept the terms in the license agreement	
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	

- 2. Selecting **Next** in this window will install NTA 3.4. Administration rights may be required.
- 3. After installation is complete select Finish.

The NTA 3.4 software has now been installed on the computer. This will open the NTA Installation Manager to check further details of your individual system.

icensing			Re-Scar
Licensing Subsystem Installed: (v	Licensing Subsystem Installed: (ver. 19.3.1.66130)		
Provisional Product Feature Code	e Installed		
NTA Feature Code Activated			
Hardware Dongle Ready			
			_
Iodel Selection			7
Iodel Selection			
NS300 •			
]
NS300 •	Remove	Info	
NS300	Remove Remove	Info Info]
NS300 Camera Drivers Scientific CMOS USB]
Instance of the second	Remove	Info	
NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Install/Remove	Info	ОК

The NTA Installation Manager controls security, model selection and camera drivers. When upgrading from NTA 2.3, NTA 3.0, NTA 3.1, NTA 3.2 or NTA 3.3, 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.

Uninstall Procedure

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

Known Issues

- 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.
- 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.
- 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.



Appendix I: NTA 3.4 Supplementary Software Guide

Document Summary

This guide gives an overview of the additional functionality and assumes prior knowledge of NTA 3.3. We would recommend using this guide alongside the NTA Software Guides for a full overview of the software.

Updated Experiment Set-up

Recent Measurements Quick Measurement	Standard Measurement
Capture	Process
Number of captures Capture duration (s) ☑ Time and date filenames ☑ Advance sample prompt	5 Image: Process after capture 60 Image: Export after process Image: Process settings each file
 Continuous syringe pump flow Launch report details pre-capture Manual temperature input 	100 Script
☐ Dilution ☐ Viscosity (Cp)	NOT SET Save script to file Launch save dialog every script
Base filename C:\Users\shelsby\Documents\t	Nano Videos \2018-01-19 \Capture Create and Run Script Create Script

From NTA 3.3 onwards. we have streamlined experiment set-up, removing the Advanced dialog, and changing the controls to give a cleaner more efficient set-up.

Appendix II: Non-standard software update

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.

If you are running <u>NTA 2.2 or earlier or for installations on a blank computer</u>, you should first check that the PC you are upgrading meets the current PC specifications. You can install the new software as above, however additionally:

- 1. It is likely you will need to update or install camera drivers (the installation manager will inform you of this during the process). For details of driver upgrades/installation, see below.
- 2. If you have multiple laser modules, you will have been given different calibration values to put in the nano.ini file. This file is no longer used in NTA 3.4. In this case refer to the *Backing up and restoring System settings* section at the end of this document and enter the correct values relating to the relevant laser module and camera.
- 3. If the upgrade appears to all work, but the camera just shows a black screen when you click on **start** it is likely that your graphics card is unsuitable or the drivers are out-of-date.



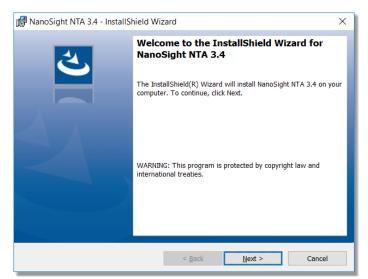
4. If the upgrade appears to work, but there is an error when a **capture** command called from **Sentinel** then it is likely the firmware of the system is out of date. In this case contact <u>helpdesk@malvernpanalytical.com</u> for the Hasp firmware upgrade software tool.

Basic Installation

In order to install the software, you will need the installer file called NanoSight NTA 3.4 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 Installer.exe** to start. The installation Wizard will then run through initial installation of NTA 3.4 presenting the dialog window below.



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



2. Selecting **Next** in this window will install NTA 3.4. Administration rights may be required.



3. After installation is complete select Finish

🖟 NanoSight NTA 3.4 - InstallSi	ield Wizard	×
	InstallShield Wizard Completed The InstallShield Wizard has successfully installed NanoSight NT/ 3.4. Click Finish to exit the wizard and launch the NTA Installation Manager to complete important system checks.	
	< <u>B</u> ack <u>F</u> inish Cancel	

The NTA 3.4 software has now been installed on the computer. This will open the NTA Installation Manager to check further details of your individual system.

icensing	10.01.00100		Re-Sca
Licensing Subsystem Installed: (v			
Provisional Product Feature Code			
NTA Feature Code Activated			
Hardware Dongle Ready			
NS300			
NS300 •	Remove	Info]
NS300	Remove	Info Info]
NS300 Camera Drivers Scientific CMOS USB			
NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire	Remove	Info	
NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Install/Remove	Info Info	ОК

The NTA Installation Manager controls security, model selection and camera drivers. When upgrading from NTA 2.3, NTA 3.0, NTA 3.1, NTA 3.2 or NTA 3.3, 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.



Activation process

If installing NTA 3.4 software on a new computer, 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.

Licensing		Re-Scan
Licensing Subsystem	Installed: (ver: Not found)	
Provisional Product F	eature Code Installed	
X NTA Feature Code A	rtwated	
	Gavareu	
 Hardware Dongle No 	t Present (optional, to run experiments)	
Model Selection	Installation Progress	
LM10-LM12	Licensing subsystem not present.	
	Click OK to install the Safenet files.	
Show Camera Drivers		
	OK Cancel	
		ОК
		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.

icensing	1
Licensing Subsystem Installed: (ver: 15.0.1.36539)	Re-Scan
Provisional Product Feature Code Installed	
NTA Feature Code Activated	
 Hardware Dongle Not Present (optional, to run experiments) 	
Iodel Selection	
LM10-LM12	
Show Camera Drivers	OK
	Cancel



2. 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.			×
NTA feature code not a Are you connected to t (YES will attempt onlin		tivation via a	n 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. If you do not have an activation code contact <u>helpdesk@malvernpanalytical.com</u> to request a quotation (*part number NTA0003*).

HAS	P S S S S S S S S S S S S S S S S S S S	Aladdin
Click "Try" to	s still active. You have 1 out run the protected applicatio OR	
Type your Product Key in	the "Product Key" field and o license activation.	click "Activate" to initiate full
		dick "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 an 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 from the desktop (note the first loading of this may take several minutes).



HASP SRM RUS	ASP SRM RUS
Collect Key Status Information Apply License Update	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 information	Update File

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.

icensing			
Licensing Subsystem Installed: (v	Re-Scar		
Provisional Product Feature Code	e Installed		
NTA Feature Code Activated			
Hardware Dongle Ready			
Nodel Selection			
NS300 •	Remove	Info]
NS300	Remove Remove	Info]
NS300 Camera Drivers Scientific CMOS USB]
NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire	Remove	Info	
NS300 Camera Drivers Scientific CMOS USB Scientific CMOS FireWire CCD / CCD Large Sensor	Remove Install/Remove	Info Info	ОК

This is not needed if you are using the software for analysis only.



CCD / CCD Large Sensor (Marlin)

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

CCD / CCD Large Sensor	Install/Remove	
EMCCD	Install	
Scientific CMOS	Install/Remove	
NS200	Install/Remove	ОК
		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.

+ 8				
IEEE1394 Host Contro	ders			
Manufacturer	Ve	ndor ID / Device ID	Driver Provider	Switch To
IEEE1394 Chip Marx LSI		1C1 / 0x5811 1C1 / 0x5901	Intek Microsoft	Microsoft 1394 Bus Driver
Host Controller Details				Reinstal
	PCI/VEN_11C1&DEV_5811&S Generic OHCILynw1394 (intek)		IEV_70141FD184F80610F1	
Device Instance ID:			IEV_70148FD184F80810F1	
Device Instance ID: Description	Generic OHCILyrax 1394 (intek)		IEV_70148FD18AF&0610F1	
Device Instance ID Description Location	Generic OHCILyrax 1394 (intek)		IEV_70-46FD184F80610FI	
Device Instance ID: Description: Location: Driver Details	Generic OHCILyrae 1394 (intek) PCI bus 4, device 2, function 0 Generic OHCILyrae 1394 (intek)		IEV_7044F0184F60610F	
Device Instance ID: Description: Location: Driver Details Description:	Generic OHCILyrae 1394 (intek) PCI bus 4, device 2, function 0 Generic OHCILyrae 1394 (intek)		IEV_7044FD184F10610F	

EMCCD (Andor Luca)

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

CCD / CCD Large Sensor	Install/Remove	
EMCCD	Install	
Scientific CMOS	Install/Remove	
NS200	Install/Remove	ОК
		Cancel

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

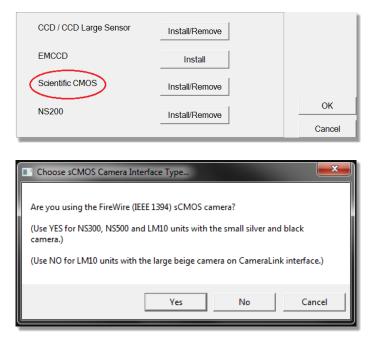
< Setup - Andor SOLIS		
Camera Types		
Before installing this software you need to kr of controller card you possess. Please selec		mber and the type
Luca		•
	< Back Next	> Cancel



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

Scientific CMOS (Hamamatsu)

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



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



 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.



NS200 (Raptor)

IMPORTANT:

Ensure the camera is not connected to the computer during installation of the Raptor software

1. In the camera driver box click on the **Install/Remove** button adjacent to **NS200**. This will start the *RaptorVison Capture Setup Wizard*.

CCD / CCD Large Sensor	Install/Remove	
EMCCD	Install	
Scientific CMOS	Install/Remove	
NS200	Install/Remove	ОК
		Cancel

2. Click **Next**, and ensure the **Everyone** option is ticked in the following window. Continue with the installation process.

🔁 RaptorVision Capture
Installation Complete
RaptorVision Capture has been successfully installed.
Click "Close" to exit.
Changes are documented in RevisionHistory txt (in the application folder). Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel < Back Close

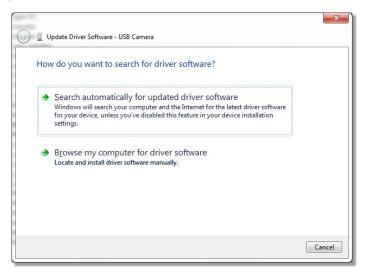
3. The Raptor camera software (but not the drivers) is now installed, click '**Close'**. It is recommended that you check Windows Update at this point. After installing any updates, restart the computer.



4. Connect the NS200 to the computer via the USB lead; automatic driver installation will begin and fail. Navigate to device manager, right-click on **USB camera** and click **Update driver software...**

🖳 Device Manager				
<u>File Action View H</u> elp				
🗢 🄿 📅 🗎 🛛 🔽 🗊 🔍 🔛 🞼 🎼				
🛛 📲 NanoSight-PC				
⊳ ₁Щ Computer				
Disk drives				
🔉 📲 Display adapters				
DVD/CD-ROM drives				
🔈 🕼 Human Interface Devices				
De ATA/ATAPI controllers				
🔈 🖷 🖳 IEEE 1394 Bus host controllers				
⊳ ·				
Mice and other pointing devices				
Monitors				
Network adapters				
 Other devices 				
FT232R USB UART				
📠 SM Bus Controller				
Iniversal Serial Bus (USB) Controller				
Iniversal Serial Bus (USB) Controller				
USB Camera				
Portable Devices				
Ports (COM & LPT)				

5. Select Browse my computer for driver software.



6. Navigate to C:\Program Files\Raptor Photonics\Bin\Merlin247USB Drivers to search for drivers and click Next to begin installation.



G	Update Driver Software - USB Camera
	Browse for driver software on your computer
	Search for driver software in this location: [C:\Program Files\Raptor Photonics\Bin\Merlin247USB Drivers Browse Include subfolders Include subfolders
	Let me pick from a list of device drivers on my computer This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
	Next Cancel

7. If you see a Windows Security window appear, click Install this driver software anyway.

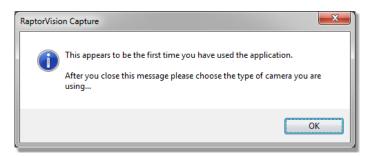


8. Driver installation is complete, click **Close** to exit. <u>Do not</u> run the NTA software yet.





9. Go to Start-programs-Raptor Photonics-Raptor Vision Capture, the following message should appear:

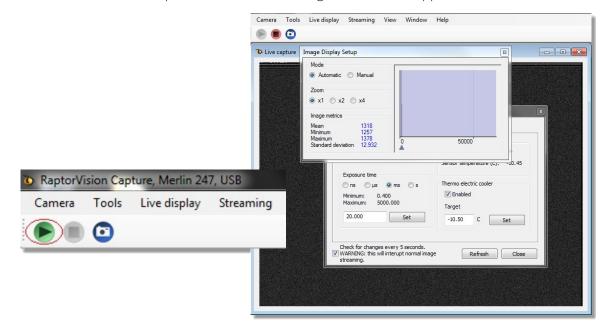


10. Click OK

11. Select Merlin 247, USB from the list, click OK

Drivers	
SDK Name	DLL
Merlin 247, Epix	RPMerlin247EpixSDK.dll
Merlin 247, GigE	RPMerlin247GigESDK.dll
Merlin 247, USB	RPMerlin247USBSDK.dll
OWL, Epix	RPOWLEpixSDK.dll
OWL, GigE	RPOWLGigESDK.dll
Simulator	RPSimulatorSDK.dll
Generic EPIX	RPGenericEPIXSDK.dll
Falcon EPIX	RPFalconEpixSDK.dll

12. Click the **Start** button in the top left corner. The following screen should appear.



This confirms the driver installation. The Raptor Vision Capture program <u>must</u> then be closed before running NTA.



Backing up and transferring system settings

In versions NTA 2.3 and before there exists a configuration file nano.ini which will be located in 'my documents'. This text file can be viewed in a suitable text editor e.g. Notepad. Within this nano.ini file there are system settings that will be updated into the configuration of NTA 3.4. Specifically, lines starting PixelSize=xxx and PixelSizeEM=yyy (where xxx would refer to the CCD camera calibration value and yyy would refer to either CCD large sensor, EMCCD or sCMOS, dependent on the camera in the instrument).

NTA 3.4 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 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 software. The tool requires administrator rights to run.

NTA 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 f	or Laser Module:	PRIME 300 secs	Zeta 2 200 200			
Show Option in NTA	<u>v</u>	V V	EMPTY 300 secs	Zeta 3 300 300			
CCD	Red Green	Blue 488 Blue 405	LOAD 60 secs	Zeta 4 400 400			
CCD Large Sensor	166 166	166 166	ADVANCE 200 msecs	Zeta 5 500 500			
	166 166	166 166	FLUSH 90 secs	Zeta 6 600 600			
			Flow Cell	Calibration 1.000000			
NS200	166 165	164 163	Type Standard 💌	Stage Gradient 0.000000			
NS200	166 166	166 166	✓ Old style top plate (0)	Stage Intercept 0.000000			
	Concentration Setup	for Laser Module:	New style top plate (1)				
	Red Green	Blue 488 Blue 405	Filter Wheel	Temperature Control			
	Setup Setup	Setup Setup	Show Filter Name	Target Tolerance 0.100000 ℃			
				Valid For 5 secs			
			Filter 2	"ON" Gradient 1000			
Show Laser Trigger (sCl	MOS only) 🔽 Default	Trigger ON when hidden	Filter 3	"ON" Intercept 0			
Remove Line Noise (sCM	MOS only, where applicable	:)	Filter 4	"OFF" Gradient			
Show 10X Objective Ch	oice (legacy)		Filter 5	"OFF" Intercept			
- Hardware Options Present -	Safety Timeout	ts / Relay Control	Filter 6				
Filter Wheel	Heater / C			TEC Gain 12.700000			
Syringe Pump	Camera /L			TEC Integral 2.810000			
Rotary Valve	Use Laser		Syringe Pump	TEC Deriv 0.703000			
DLS unit Gilson AutoSampler	it ose caser	(15505)	Model Tag OEM	TEC Invert 1			
	Gilson AutoSan	pler Option	Load Rate 1000	DLS			
	Needle Up Max	imum 2120	Withdraw Rate 1000	Scattering Angle 90 deg			
Load or Save All Settings using	Load or Save All Settings using a .INI text file Reload Current Settings Use OK to write values to the registry						
Load from INI Save	to INI	Load Current		OK Cancel			



If upgrading from NTA 2.3 or earlier, or installing on a new system you should either enter or confirm values xxx and yyy identified in the nano.ini file discussed above are entered in the relevant fields above under camera configuration.

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.



MALVERN PANALYTICAL

Malvern Panalytical Ltd. Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom

Tel: +44 1684 892456 Fax: +44 1684 892789 Malvern Panalytical B.V. Lelyweg 1, 7602 EA Almelo, Netherlands

Tel: +33 546 534 444 Fax: +33 54 534 598

info@malvernpanalytical.com www.malvernpanalytical.com

Disclaimer: Although diligent care has been used to ensure that the information in this material is accurate, nothing herein can be construed to imply any representation or warranty as to the accuracy, correctness or completeness of this information and we shall not be liable for errors contained herein or for damages in connection with the use of this material. Malvern Panalytical reserves the right to change the content in this material at any time without notice. Copyright: © 2018 Malvern Panalytical. This publication or any portion thereof may not be copied or transmitted without our express written permission.

