Release Notes Thermo Fisher Scientific Attune™ NxT Software v2.5

In the following pages you will find instructions describing:

- 1. New software features
- 2. Known software/system issues with troubleshooting guidance
- 3. Software Bugs that have been fixed
- 4. Software installation instructions

Please note that it is critical for you (the customer) to review the installation instructions completely prior to installing or operating the Attune™ NxT Software Version 2.5

Installation instructions are included at the bottom of this document for your reference.

New software features implemented in Version 2.5

- *Overlay Module* to perform comparative analysis of single parameter and dual parameter data between samples.
- Setup and collect compensation controls directly from a plate.
- Manually collect samples from a plate (Manual Well Mode) to setup instrument settings using wells.
- User customizable "Wait to record" option to delay the recording of data acquired from plates based on time, event or volume.
- *A La Cart Well Selection* to specify order of acquisition when recording a plate.
- Automated Data and Database Back Up to ensure data redundancy.
- Printing support for the Workspace, Results, Heatmap, and Overlays.
- *Batch Printing* of experiments to quickly archive results.
- Bubble Detection in tubes and wells.
- *Modification of Compensation* to add or remove parameters as needed after compensation is setup.
- Customization of parameter names to allow choice between using the parameter name (i.e. BL1-H) or stain name (i.e. Alexa[™] Fluor 488) on the parameter drop down list, plot axes, and compensation control names in the Experiment Explorer.
- Automatic *Calibration* of the auto sampler every 30 days to ensure optimal performance when using the auto sampler.

The following sections describe known issues with the Attune[™] NxT v2.5 software. Where possible we have outlined steps to work around the known issue.

Guidance for Installing the Attune™ NxT version 2.5 software:

• See the "Installation Troubleshooting Guidance" at the end of this document.

Guidance for Instrument Start Up and Performance Test using the Attune[™] NxT v2.5 Software:

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Power on the auto sampler before the Attune™ NxT cytometer. If you do not turn the auto sampler on prior to starting the instrument the auto sampler is not recognized.



- If you encounter problems with Startup, close the software, power off the instrument and repeat power on procedure in the correct order.
- **Stopping startup** will not stop the auto sampler initialization. Wait for the auto sampler initialization to complete before running the startup function again.

Guidance for Setting up an experiment using the Attune[™] NxT v2.5 Software:

Issue ID	Description of Known Issue	Suggested Action
53424	When the plot type is changed using the right-	If you change plot types using the customize
	click customize menu, the newly created plot	menu, ensure that x-and y-axis scale ranges
	will have the default scale of the previous plot.	are set appropriately.
	A plate experiment isn't automatically active	Double click on the new experiment to
	after it is created. The plate experiment is	activate it, create samples or groups of
56476	visible in the experiment explorer but is not	samples on heat map tab, expand the group
	the experiment viewed in the Attune™	and double click to activate a sample to
	desktop.	create a workspace, define the run and
		acquisition criteria, and create a workspace,
		run protocol, and acquire samples.
	When creating experiments, the software	Export experiment data from the experiment
	doesn't check to see if it there is enough disk	explorer and then remove experiments to
	space to create the necessary files.	free up disk space
	This results in missing files and XML load	
56550	failures. If there isn't enough room to create	
	the EE nodes, Error -1 is returned, and	
	attempting to open any experiment that	
	doesn't contain XML files, returns an	
	undefined error	

Guidance for using the Experiment Explorer and Instrument Settings panel within the Attune™ NxT v2.5 Software:

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The default width threshold has been updated to 1.0. This will only apply to new software installation and newly created user accounts. It is recommended that existing users change their default width threshold to 1.0.

Issue ID	Description of Known Issue	Suggested Action
1206	Adding more than 400 samples to an	If an experiment requires more than 400
	experiment can cause software instability.	samples, duplicate the experiment for
		additional samples beyond 400.

Guidance for using Compensation within the Attune™ NxT v2.5 Software:

- The gate names on histogram plots within compensation samples are shown in large text ٠ and cannot be customized
 - When using "on-plot" adjustment tools for large (>1 million) event files, response rate for adjustments will be slow.

Issue ID	Description of Known Issue	Suggested Action
54564	Parameters that are deselected by the user will become re-enabled if the user switches between area and height measurements AFTER the parameters were deselected.	Ensure that the desired area or height parameter is selected prior to selecting parameters for compensation controls. If area or height measurement is changed, ensure that the correct parameters are selected prior to sample acquisition.
57907	Undoing the movement of a gate on a compensation control will not update the compensation matrix	Do not use the undo function when making adjustments to the gates or markers on the compensation workspace. Adjust the gates back to the previous position if necessary.
EE-5759	Wells that are selected on the Heatmap will not be available to map to compensation controls in the Compensation Setup dialog once compensation has already been created.	If the well to compensation control mapping needs to changed, ensure that wells that are not part of the desired compensation selection are selected prior to opening the compensation setup.
EE-5876	If the compensation source is changed from tubes to wells, the newly mapped heatmap locations will not be displayed on the heatmap and on reopening the compensation setup dialog will not display the mapped well location adjacent to the corresponding compensation control	Reloading the experiment will update the heatmap and compensation setup dialog to correctly show the wells mapped to their corresponding compensation control channels.

Guidance for Acquiring Samples using the Attune[™] NxT v2.5 Software:

!	 At very high event rates on very large data collections, you may observe a slowing of the data update on the screen (~5 sec between updates). This does not have any impact on the completion of the acquisition. To improve response rate, turn off auto-scaling or
	auto refresh functions (located on the Home ribbon tab).
	 If any plot axes are set to auto-scale during acquisition, excessive CPU usage may occur resulting in a system wide performance lag. It is recommended that all plots are set to
	manual scale during acquisition for optimal system performance.
	 It is suggested to limit the number of mixes to 2 or less to prevent bubbles being introduced into the sample.
	• Keep the tube lifter in the DOWN position when using the auto sampler.
	• For large data files especially on workspaces that have statistics boxes, software response may be slow if the workspace is modified during acquisition. When this occurs, a blue indicator spinning wheel will be visible. This does not have any impact on the completion of acquisition. It is recommended that if you are acquiring large files, wait to make adjustments on the workspace until after the file has completed.
	 By default the option to exclude coincident events is turned OFF. To exclude coincident events, select the "Exclude coincident events" option in the Threshold section of the Instrument Settings panel.
	By default the first two decades are displayed on dual parameter and histogram plots set

• By default the first two decades are displayed on dual parameter and histogram plots set to *log* scale. Ensure that voltage settings are optimized so that all populations are set above the noise (greater than 10²).

Issue ID	Description of Known Issue	Suggested Action
EE-688	The complete stop condition option for	Only use total events or gated events if you
	append does not work if stop condition is based on time or volume	require to add data to existing data files
EE-2967	If a fluid bottle is disconnected when a sample has been preloaded, sample recovery will return the sample to the wrong well.	If a fluid bottle error occurs while processing a plate, do not recover the sample back to the sample plate. Load a clean plate to recover the sample and transfer the sample back to the correct well in the original sample plate.
EE-5822	When the "Collect Wells Starting From" option is selected, more than one well can be entered into the textbox and will not flag the extra well as an invalid entry. When this happens, the plate will attempt to record from the first well of the first group.	Ensure only a single well is entered in the text box when the "Collect Wells Starting From" option is selected.
EE-5572	Pressing stop during acquisition on the last well of a plate run automatically runs a rinse so there is no chance to recover sample.	Do not press stop on the last well of a plate run as it will result in loss of any unprocessed sample.

Guidance for using the Experiment Workspace (Gates, Plots, Stats) within the Attune™ NxT v2.5 Software:

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With large event files, there can be a slow response in between commands. Faster response rates can be achieved with fewer parameters selected and using a decreased number of plots and gates on workspace. Disabling the auto-refresh on home tab will also

improve system performance.

- Quadrant gate names can't be moved.
- To export statistics from a statistics box, the box must be double clicked to view the option in the right click context menu.
- Statistics boxes cannot be copied/pasted into other programs.

Issue ID	Description of Known Issue	Suggested Action
55134	The time it takes to open the plot "Preview" panel is dependent upon the number of parameters enabled	Deselect unneeded parameters prior to opening "Preview" panel.
57459	The buttons on the workspace toolbar are not active when a new plate node or experiment is activated	Define a group/sample and activate a well sample for the workspace tool bar to become active
EE-5793	When orientation is changed and then grid size of workspace is changed, the next workspace of differing grid size viewed may cause plots to occupy more grid spaces than originally set.	This can be fixed by forcing the workspace objects to snap back to the default grid locations by toggling between freeform and auto layout.
EE-4742	When the application is launched, scroll bars on the workspace are not sized correctly to allow the entirety of the workspace to be viewed until the workspace is zoomed out to see all the workspace items.	Adjust the workspace zoom to render all pages for the workspace. At this point, the scroll bars will be correctly rendered.
EE-445	When adjusting the size of the polygon gate on a plot using the bounding rectangle box, the gate vertices may not maintain their relative positions.	Polygon gates can be made smaller or larger by moving the individual points on the gate itself or by adjusting the bounding box and then adjusting the individual point that was not maintained.

Guidance for working with Overlays within the Attune™ NxT v2.5 Software:

- Gallery plots cannot be printed at this time. In order to print gallery plots, copy and paste them to an external application that supports printing.
 - When printing overlay plots, the size of the printed plot can be adjusted using the zoom setting. Ensure the Overlay view's zoom setting is less than 400% otherwise the plots may be too big to print on a page.
 - No warning is given if attempting to overlay FCS files that were acquired using different instrument settings. Ensure that samples were acquired using the same settings prior to using this feature.
 - The resolution of printed overlay plots may not be suitable for publication. For higher resolution images, it is suggested to copy/paste the plot into another program OR to save the file as a .tif, .jpg, .emf, .png,.bmp, or .gif file

Issue ID	Description of Known Issue	Suggested Action
EE-4539	If an overlay plot is created from a sample that does not contain data, the X axis label will not be blank.	When data is recorded, the overlay axis label will correctly reflect the selected parameter.

(!)	•	Analysis of 3 rd party FCS files in the Attune NxT software is not supported. Background calculation of statistics may not complete if 3 rd party FCS files are included in an experiment.
	•	Data in the Results Table can be copied but the header row is NOT copied and must be entered into a secondary data analysis program such as Microsoft® Office Excel. (Note-header row will be copied if you use the send table to function on the statistics ribbon)

Guidance for Data Analysis / Data Display using the Attune™ NxT v2.5 Software:

Guidance for Exporting/Importing using the Attune™ NxT v2.5 Software

• When exporting FCS files from experiments that have experiment level compensation, you may be asked to update the compensation values in the exported file even though the compensation values have not changed. Select ignore or update.

Issue ID	Description of Known Issue	Suggested Action
EE-5861	No warning is displayed to the user if imported compensation settings use different instrument settings from already recorded samples.	If an imported compensation uses different instrument settings from already recorded samples, the compensation values may not be valid for the existing samples. It is recommended that the compensation settings are imported prior to recording and samples to ensure samples use the same instrument settings as the compensation settings.

Guidance for Shut down or Maintenance features or using the Attune[™] NxT v2.5 Software:

٠	The self-test function can become frozen if the USB is disconnected from the auto
	sampler or auto sampler is turned off during self-test. Do not turn off the auto sampler or
	remove any cables during operation of the instrument or while running maintenance
	functions (i.e. deep clean, shutdown)

Guidance for Setting up user accounts and user options using the Attune[™] NxT v2.5 Software:

٠	After initial set up of a user account, the "Forgot password" option is available if security questions have been created. See the User Guide for instructions on how to setup
	password reset questions.

Guidance for Database Backup using the Attune NxT Database Utility Program:

If the automated backup is currently set to "OFF", and it is then turned "ON", the Status ٠ Page will continue to state that the backup is "OFF" until the Database Utility is closed and re-opened.

Software Bugs Fixed In This Release

* [EE-476] - When there is a 0113 sample pump error thrown the gear pump continued to flush fluid from the EFS Supply to waste

* [EE-646] – Importing FCS files with missing channels would set the corresponding voltage to 0.

* [EE-666] – When Quadrant gate colors were changed in the edit gates dialog, the colors would not be updated in the customize panel

* [EE-880] - Refreshing dialog would hang when an experiment contained blank and nonblank wells

* [EE-946] – Compensation was not being applied from file on use comp from file (no matrix shown)

* [EE-947] - Experiment Compensation generated from imported file was resetting to the null matrix when the matrix was reset

* [EE-968] - Cannot login after logging out with a bad instrument setting value.

* [EE-1387] - Sample acquisition would continue if the Attune application crashed

* [EE-1742] – If the sample pump stalled, an instrument power cycle was required to reinitialize the sample pump

* [EE-1826] - Quad gate labels would disappear and then change from gray to black upon reloading the sample

* [EE-2072] - Forced password change dialog the cancel button does not work only method to escape without changing password is to kill the app via task manager

* [EE-2082] - When importing an experiment of a same name as one already in the EE, the name was not being incremented consistently

* [EE-2118] – Creating a username that ends in trailing periods or using system reserved words crashes the software

* [EE-2185] - Plot gate hyperlink was not displayed if the plot title is too long

* [EE-2186] - Entering keywords in experiment explorer before creating an experiment crashes software

* [EE-2187] - On the "Results" view, right clicking on a column header displayed a list of statistics, some of which are not currently available. (i.e. cell cycle statistics)

* [EE-2188] - If target or label names are displayed on a plot axis, and the channel name isn't selected the measurement was not displayed.

* [EE-2215] - Double-clicking a well on the heat map to activate a sample selects the sample in the EE in gray instead of orange

* [EE-2256] - Double clicking on group does not select and activate the first sample in selected group

* [EE-2268] - Fixed Rinse stalls

* [EE-2273] - System log viewer is sometimes showing incorrect text for software version

* [EE-2274] - Without functional FSC and SSC, BL and PT will sometimes fail to create proper gates on BL1

* [EE-2297] - Activated Explorer View row item over mouse over does not show orange background

* [EE-2309] - Dragging/dropping badges in experiment explorer during a rinse can leave cursor in a "No Entry" state

* [EE-2329] - When no experiments, and keyword search is used - there is no way to revert to user explorer view again

* [EE-2336] - During start up, selecting to cancel dialog that says Check fluid bottles causes series of issues that requires power cycling the Attune to fix

* [EE-2343] - If keyword search is attempted before any experiments have been created user name is removed and any attempt to add experiment results in infinite wait and blue spinner

* [EE-2385] - When a pre-acquisition rinse is stopped through instrument ribbon, acquisition still occurs

* [EE-2409] - Display parameter name as under general options does not override the customize default application setting

* [EE-2438] - Importing plate experiment screws up well order in experiment explorer

* [EE-2485] - Deleting a quadrant section from the edit gates dialog when "is gate" is selected doesn't delete the gate

* [EE-2536] - Sample remaining indicator is not being cleared after running a rinse from the instrument ribbon on tube acquisition

* [EE-2573] - New comp control button is enabled/active when compensation has already been created

* [EE-2630] - The heatmap view becomes blank after viewing filter configuration and then closing filter configuration

* [EE-2665] - Selecting select all in stats ribbon selects all but doesn't check Select All checkbox

* [EE-2674] - Dialogs missing instructional text when panels are un-docked

* [EE-2677] - Keyword filter does not find names that have xxx(xxx) where x is a number or letter

* [EE-2713] - When selected in the voltage text boxes in the IS panel, using the mouse wheel not only changes the voltage, but it scrolls the panel

* [EE-2779] - Greater than/Less than symbols are not shown on heat map when values are outside the min and max values

* [EE-2780] - Parameter shift data desync

* [EE-2793] - Changing name of sample doesn't update file name in results table

* [EE-2796] - Consecutive spaces are not removed from gate names in the gate customize menu

* [EE-2841] - If the gate name is long near the 50 character limit then the gate name can't be moved on the plot independent of the gate

* [EE-2934] - After dropping tube lifter during first of Multidraw Tube acquisition, cancel button was not handled correctly leaving the system in a busy state

* [EE-2936] - Can't import experiments if Windows user name has non-ASCII characters

* [EE-2974] - Volume statistic is not exported to CSV when selected and shown on the results view

* [EE-2998] - Software will crash if a performance test is run after a configuration change if a new baseline is not run 1st

* [EE-3366] - Highlighted row in performance test report hides any value were are out of specification

* [EE-3492] - Quadrant gate names are not supporting 50 character limits.

* [EE-3493] - Manually entered quadrant gate coordinates are not being saved.

* [EE-3494] - Cannot enter more than 44 characters in a gate name.

* [EE-3495] - If you setup comp, import a comp control, then remove comp, you do not get the option to update experiment comp when you import an FCS file with spillover into the sample

* [EE-3496] - Prevent users from naming samples CON, PRN, AUX, CLOCK\$, NUL, COM1, COM2, COM3, COM4, COM5, COM6, COM7, COM8, COM9,LPT1, LPT2, LPT3, LPT4, LPT5, LPT6, LPT7, LPT8, LPT9

* [EE-3502] - If area parameters are all deselected, comp setup dialog still has area set as the default measurement instead of height

* [EE-3505] - Heatmap transition point error balloon persists after removing transition points

* [EE-3510] - Normalize count is unable to be selected in the customize menu for the histogram plot on a compensation workspace

* [EE-3515] - HyperLog scale option is disabled on the plot context and plot axis context menus of the dual parameter plot on a compensation workspace

* [EE-3561] - Workspace zoom tool is not available during baseline and performance test

* [EE-3595] - Crash when stopping baseline before it's completed

* [EE-3622] - Invalid argument error when attempting to change the instrument configuration in the instrument settings parameters panel

* [EE-3717] - Heatmap workspace shakes indefinitely and application unresponsive

* [EE-3723] - Update flowrate when importing FCS file

* [EE-3753] - On the first instance of a user login, if a user activates a sample with a sample workspace and multi selects a sample w/out a sample workspace and tries to export sample WS stats, nothing exports

* [EE-3762] - Pressing stop right away on baseline/PT gets the application stuck in acquisition but the instrument is solid green.

* [EE-3787] - All 3 options for deep clean and shutdown run the same length of time

* [EE-3790] - Failing of PT due to PT triggering on noise when VL4 is randomly selected as the trigger channel for PT

* [EE-3803] - When removing compensation for a non-active experiment, the other experiment sample gets activated

* [EE-3805] - Repeated performance and baseline tests randomly causes firmware to stop responding with no errors being written to the logs

* [EE-3820] - If parameter in instrument settings is designated as a SSC channel by configuration manager, it should be excluded from the disabled voltages when comp is present

* [EE-3841] - Heatmap View no longer refreshes/repaints when scrolling

* [EE-3904] - Activating well in heat map without expanding group in EE doesn't highlight well in EE orange

* [EE-3987] - Can't change plot type to histogram and back to a different plot type

* [EE-4001] - Software crash when deleting an experiment while auto sampler is recovering a preloaded well

* [EE-4012] - Firmware stall after performance test but attune lights remain green until stop is pressed before blinking amber

* [EE-4045] - Misspelled word in Options dialog

* [EE-4053] - After a duplicated experiment is deleted, the instrument settings get corrupted and database layer returns error code 1021 (invalid instrument settings)

* [EE-4060] - System hang during acquisition

* [EE-4099] - Unknown system error when trying to open experiment

* [EE-4134] - Attempting to set compensation control IS as default causes Instrument Settings Mismatch dialog

* [EE-4154] - Dropping Tube Lifter prior to completion of acquisition can stop FCS file from being written

* [EE-4170] - Select all in Options: Stats Options doesn't stay selected when closing/re-opening Options

* [EE-4171] - Comp Source displayed in workspace stat box when it's not selectable in the stats ribbon

* [EE-4196] - Deleting comp causes crash if no samples have been imported/recorded; gives unknown error if any samples have been imported or recorded

* [EE-4261] - When a green laser model is selected the order of green laser channels in the instrument settings tab is in the wrong order and does not just replace the yellow laser locations this causes the label fields to be mismapped

* [EE-4277] - IS advanced and system settings save invalid entries if view changed or user logs out

* [EE-4378] - Plate Collect validation warnings pop at undesirable times

* [EE-4401] - Gate Logic builder fails to create a logical gate if gates are named with mathematical symbols at end of gate names.

* [EE-4429] - After Attune installation finishes, FWUtility.exe crashes and has to be run manually

* [EE-4442] - Pressing record while plate is still retracting into the auto sampler sometimes locks the application like it is in acquisition, but no acquisition occurs

* [EE-4538] - Baseline is not completing fully because tube lifter dialog during boost calibration cancels baseline run when tube lifter is raised

* [EE-4545] - Running startup after running a shutdown doesn't always reset the startup icon in the collection panel to run/record

* [EE-4546] - Pressing startup with the tube lifter up while system is in sleep mode is calling rinse script instead of startup

* [EE-4619] - User is able to change parameters after setting up compensation

* [EE-4693] - Running performance test without PT beads causes software crash

* [EE-4697] - Communication Desync between USB Controller and ICBM

* [EE-4703] - Syringe pump stall with no error notification

* [EE-4726] - Filtering EE while in acquisition causes software to crash and no FSC file to be written

* [EE-4783] - Sample recovery option not available when manual well is stopped in either run or record mode

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* [EE-4864] - Double-click selected stats box within workspace does not update on sample change

* [EE-4875] - Mismatch between parameters on IS vs. workspace causes the application to crash

* [EE-4972] - Seeing high frequency of system error 0134 - rotary valve communication lost

* [EE-4973] - System busy dialog presented when declining sample recover from starting an instrument function

* [EE-4974] - All the stats in the general group should be enabled when a workspace stat box is selected

* [EE-4975] - Plate option is not present in the stats options tab of the options dialog

* [EE-4976] - Stats on plot option on stats should be removed from the ribbon

* [EE-4977] - Statistics should be named consistently between stats options in options dialog, stats ribbon, and column headers

* [EE-4980] - Exported stats are limited to 2 decimal places.

* [EE-5004] - Volume is now an available statistic on workspace plots and statistics tables.

* [EE-5033] - Importing the same FCS file into an experiment to 2 different samples gives the 2nd sample an IS badge

* [EE-5053] - Pressing record while plate is still retracting cancels the record

* [EE-5128] - Importing compensation control before opening compensation sample causes an unknown system error and prevents compensation sample from being opened

* [EE-5148] - When setting up compensation controls after controls have been created all voltages except FSC and SSC are locked before any data has been collected.

* [EE-5163] - Running a performance test after baseline without dropping tube lifter in between causes PT to fail with "beads not found on trigger channels"

* [EE-5205] - Performance test reports truncate column names for both print preview and print

* [EE-5207] - Performance test reports print orientation is based on what was set for last experiment selected

* [EE-5209] - Print what drop down doesn't work for PT reports - can only print current selected view

* [EE-5210] - Fix issue with potential crash in POST

* [EE-2840] - If you type a gate name that is too long a warning balloon is shown but all user typed text is removed very annoying to have to retype the text rather than just be shown the balloon

* [EE-4481] - When a user either imports or drags a workspace onto an experiment, they should be giving a warning balloon that they might break links to source plots on overlays

Installation Instructions:

System Requirements: Quad core processor, 16 GB RAM, 500 GB disk space available. Windows 7 64 bit Professional with Service Pack 1 set to **US English**.

- The instrument must be **powered on and connected** to the computer for the firmware updater to run at the end of the installer.
 - **DO NOT** update the firmware if the instrument is in a sleep state. The indicator lights on the front of the instrument will fade in/fade out in multiple colors during the sleep state. **Power cycle** (turn on and off) the instrument prior to running the firmware updater.
 - **DO NOT** launch the software application until all installation steps have been completed.
 - **DO NOT** run any other applications while completing these steps.
 - No change to existing login credentials will occur during the software upgrade.

INSTALL AND UPGRADE (v2.1, v2.2, v2.3, v2.4 to Attune[™] NxT Software v2.5)

Software Installation

	٠	Ensure All Data is backed up to an external storage device before performing the upgrade
$\mathbf{\bullet}$		process.

Step 1 Restart or power on the computer and cytometer.

Step 2 Ensure that the Deskey USB key that is used to run the software is plugged into the computer.

Step 3 Log into Windows as:

User: INSTR-ADMIN and	NOTE: This is the default administrator account. (Note: If your
Password: INSTR-ADMIN	instrument is networked, please make sure that the administrator
	privileges have not been removed by your local IT department.)

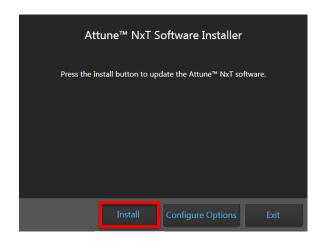
Step 4 Unzip (select "extract all files") the AttuneNxT_2.5.321.1.zip file to the desktop.

Step 5 NEW INSTALL ONLY

- 1. Open the USB3_FOR NEW INSTALL, INSTALL ME FIRST folder
- 2. Double-click the "RENESAS-USB3-Host-Driver-30230-setup.exe" file.
- 3. Follow the instructions and accept the terms of agreement.
- 4. Once complete, click "Finish".
- 5. Plug in the Deskey device and power on the Attune™ NxT cytometer

Step 6 Install the software:

- a. Double-click "SetupAttuneNxT.exe" in the "Attune NxT_Build 2.5.321.1 folder.
- b. Select "Install"



A new window will open as shown below indicating the progress of the software installation. If "Cancel" is pressed during this stage, return to step 4 and restart the process beginning with re-running the "SetupAttuneNxT.exe"

Attune NxT Software Installer
Configuring the application. This may take a few minutes.
Configuring package: vcRedist
Cancel

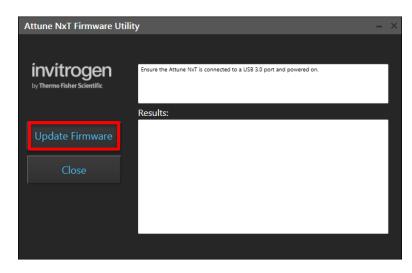
Step 7 When the installer has completed, the "Installation completed successfully" message is displayed. Close the installer by clicking the "Exit" button

Attune™ NxT Software Installer	
Installation completed successfully.	
	Exit

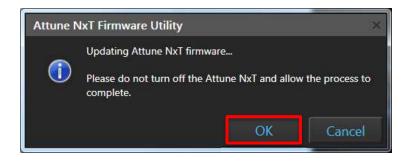
Firmware Installation

•	DO NOT update the firmware if the instrument is in a sleep state. The indicator lights on the front of the instrument will fade in/fade out in multiple colors during the sleep state. Power
	cycle (turn on and off) the instrument prior to running the firmware updater.
٠	The firmware update process should take less than 15 minutes.

Step 1 At the end of the installer, the firmware updater utility will automatically launch if the instrument is powered on and connected.



- **Step 2** Select the '**Update Firmware'** button to update the firmware.
- **Step 3** Confirm that you want to update the firmware when the firmware update confirmation dialog is displayed by clicking the **'OK'** button:

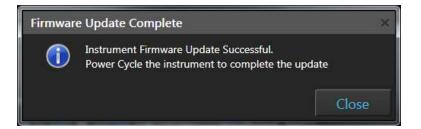




NOTE: While the firmware updater is processing, the status is displayed in the results window:

Attune™ NxT Firmware U	Jtility	- ×
invitrogen	Updating Attune NxT firmware	
by Thermo Fisher Scientific	Please do not turn off the Attune NxT and allow the process to complete.	
	Results:	
	Complete Wrote 256 bytes to flash Complete Wrote 256 bytes to flash	*
	Exit LGM ISP mode. 	
	Writing Script to ICBM .Complete Writing Script to ICBM	
	.Complete	-

Step 4 Once the firmware has completed, the "Firmware Update Complete" dialog is displayed indicating the firmware update was successful:



- **Step 5 Power Cycle** the instrument to complete the firmware update.
- **Step 6** Click the 'Close' button to exit the firmware update utility.

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- **Step 7** The software application and instrument are now ready to use.
- **Step 8** Launch the software using login credentials used in earlier software versions.

If the firmware updater is not completed as part of the installation, you will be prompted to update the firmware the first time the application is launched when the instrument is powered up and connected.

UPGRADE FROM v2.0.1 or earlier - Attune[™] NxT Software v2.5 Installation

For customers that are currently using Attune[™] NxT Software v2.0.1 or earlier, please contact technical support or your local field service engineer.