



# SPECTROFLO<sup>®</sup> VERSION 2.2.0.4 RELEASE NOTES

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## OVERVIEW

SpectroFlo version 2.2.0.4 is a patch release to address a couple of very rare conditions when live unmixing large panels of 30 or more colors at either (a) extremely high concentrations or (b) in samples with large amounts of debris. Both cases place the system under heavy computational and memory loads.

## DEFECT FIXES IN v2.2.0.4 RELEASE

- Eliminate duplicate data segments: Under specific circumstances, data segments could be recorded twice when the system was under heavy computational and memory loads (e.g. live unmixing 30+ color debris-heavy samples). This defect has been fixed.
- Eliminate Dangled Tube Document in Database: When a tube was deleted from an experiment, the database document defining the tube could not be removed, leading to unnecessary memory consumption of the database. This defect has been fixed.

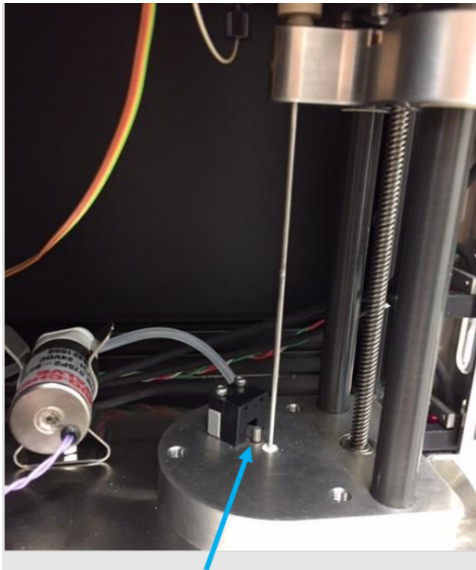
## KNOWN SOFTWARE DEFECTS

- Post-Acquisition Unmixing File Size Constraint: We recommend only unmixing multicolor FCS files that contain fewer than 10,000,000 total events. Files that are bigger than 10,000,000 events may take several hours to unmix.
- Events to Display & Live Unmixing: If you want to display a lot of events (e.g. 1,000,000) while live unmixing a tube, the software will become very slow. We recommend reducing your events to display to 50,000 events or less when live unmixing your data. After the acquisition is finished, you can display 5-100% of your recorded events without being penalized.
- Auto-Scaling of Axes for Unmixed Files: Auto-scaling of plot axes (found in Plot Properties) does not always apply properly for an unmixed tube. You may need to toggle to Manual Scale and then back to Auto Axis Scale to get the scaling to update and apply correctly.
- Limitation for the Name of User Defined Keyword: "Name" cannot be used as the key of a user defined keyword. Software does not prevent users from doing so. However, if users do define such a keyword and this keyword is added in the statistics table, batch analysis cannot be completed due to a conflict with a reserved string used in the statistics table of SpectroFlo.

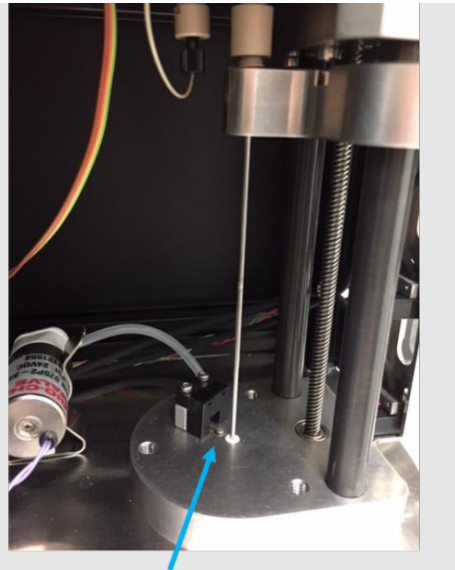
## KNOWN HARDWARE DEFECTS

- Automatic SIT Flush: SIT flush does not always occur automatically between sample tubes. Occasionally, the mechanical flag that blocks and unblocks the tube sensor gets stuck in the tube present position. If you do not hear a SIT flush after unloading your tube, open the SIT door and check the position of the flag. If it is stuck in the up position when no tube is present, press the flag down. The SIT flush will then execute. If you notice a lot of

salt buildup around the flag, let your Cytek Field Service Engineer know so they can clean it out for you.



Flag is in up position. This blocks the black rectangular optical sensor to the right of the flag and lets the software know that a tube is present on the SIP.



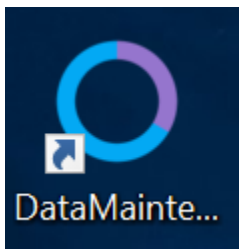
Flag is in down position. Optical sensor is unblocked, and lets the software know that a tube is not present on the SIP.

## **DATA BACKUP AND SOFTWARE INSTALLATION INSTRUCTIONS**

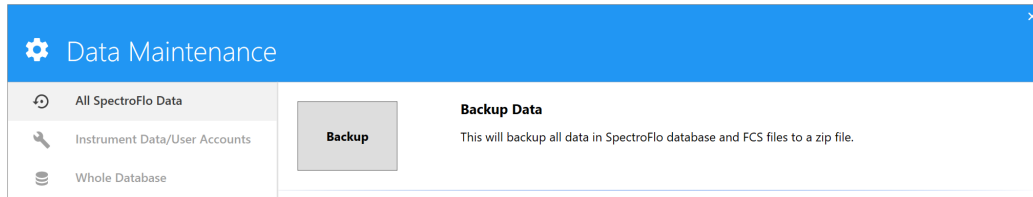
Before upgrading your system to SpectroFlo v2.2.0.4, we recommend to first back up your data. This way, if anything goes wrong during the installation process, you can always revert back to the backup files. For a video overview of the SpectroFlo Data Maintenance tool, please view the Data Maintenance tutorial video on the Cytek Biosciences YouTube channel: <https://youtu.be/HKGevbGTCaM>.

### *Backing Up Your Data*

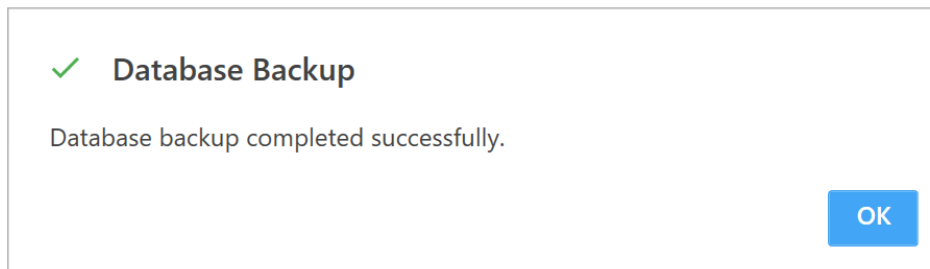
1. Open the SpectroFlo Data Maintenance tool.



2. Click the "Backup" button. Select a folder to export the backup ZIP file to and click OK. Depending how much data is in your software, this backup could take some time.



3. A message will appear when the backup has completed. Click "OK".

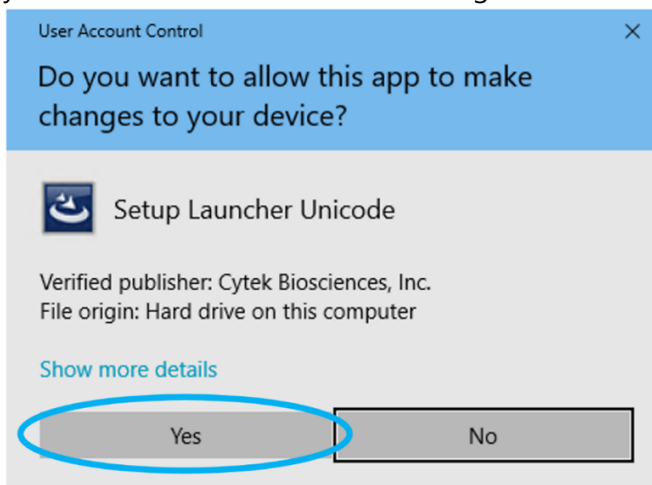


Now that you've backed up your system, continue with the software upgrade instructions that follow.

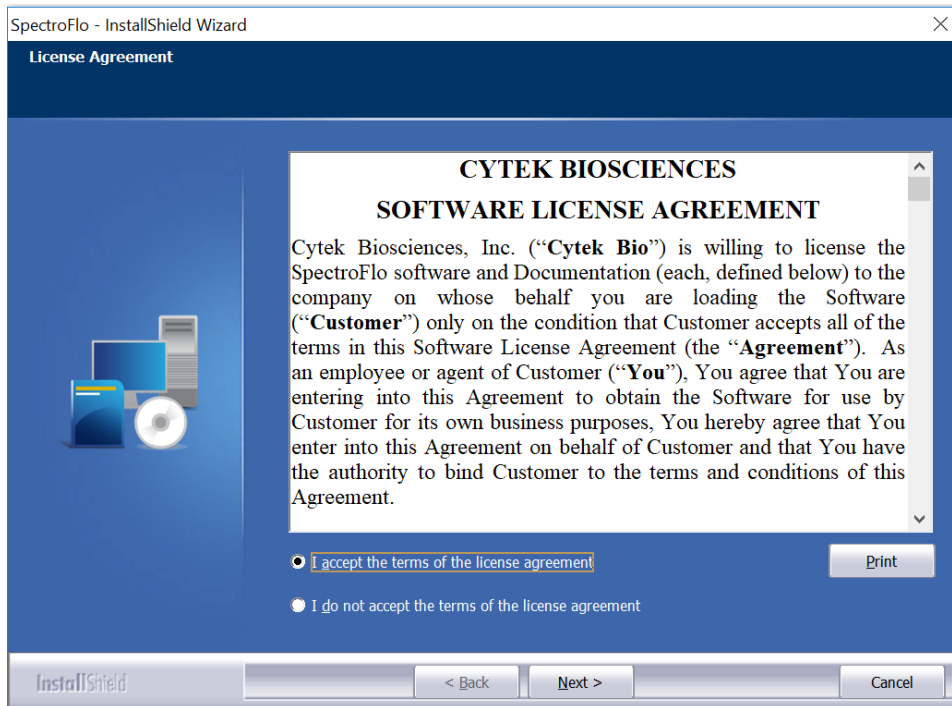
### *Upgrading SpectroFlo from 1.x.x and 2.x.x to 2.2.0.4*

Note: upgrade from 1.x.x to 2.2.0.4 needs a hardware(firmware) upgrade. A Cytek Field Service Engineer must perform this upgrade.

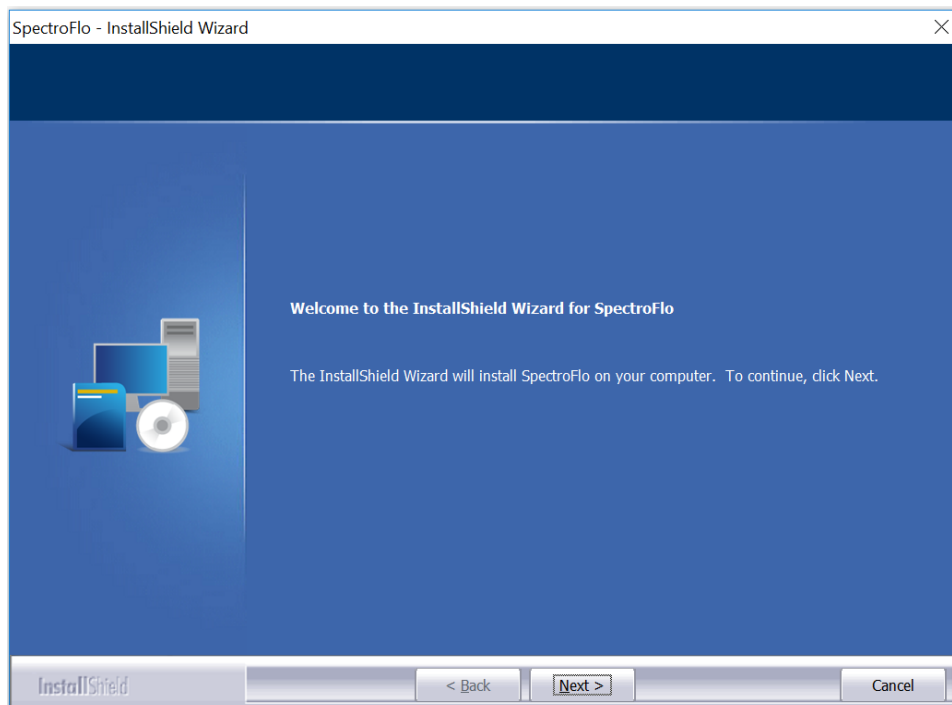
1. Download SpectroFlo\_Setup\_2.2.0.4.exe and open it. Note: this screen may not show if your PC's user account control setting is set to "Never notify". If it appears, click "Yes".



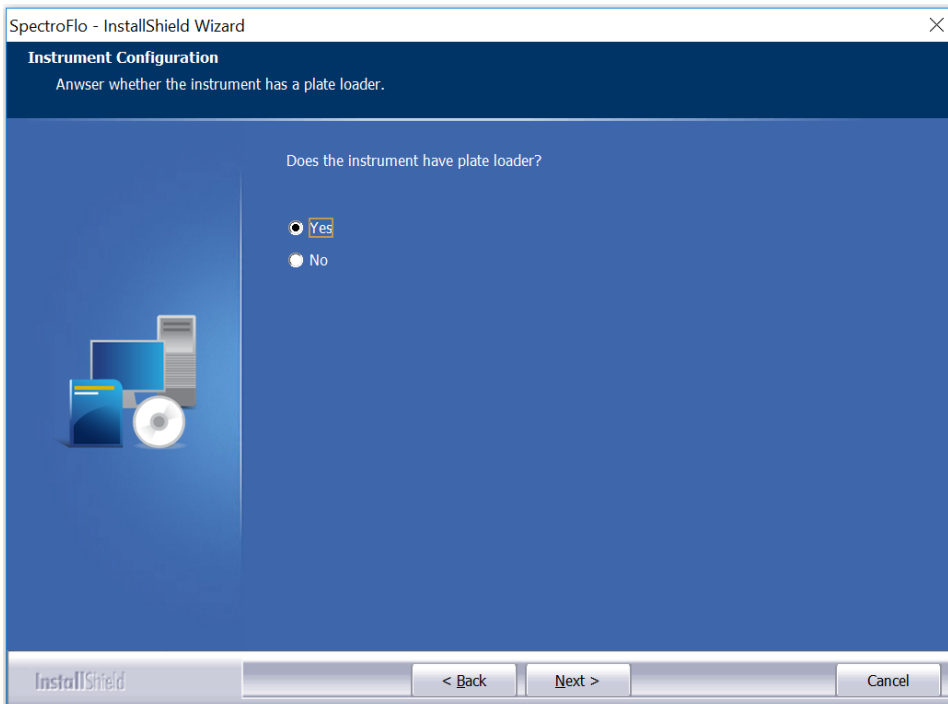
2. Select "I accept the terms of the license agreement" radio button. Then click "Next".



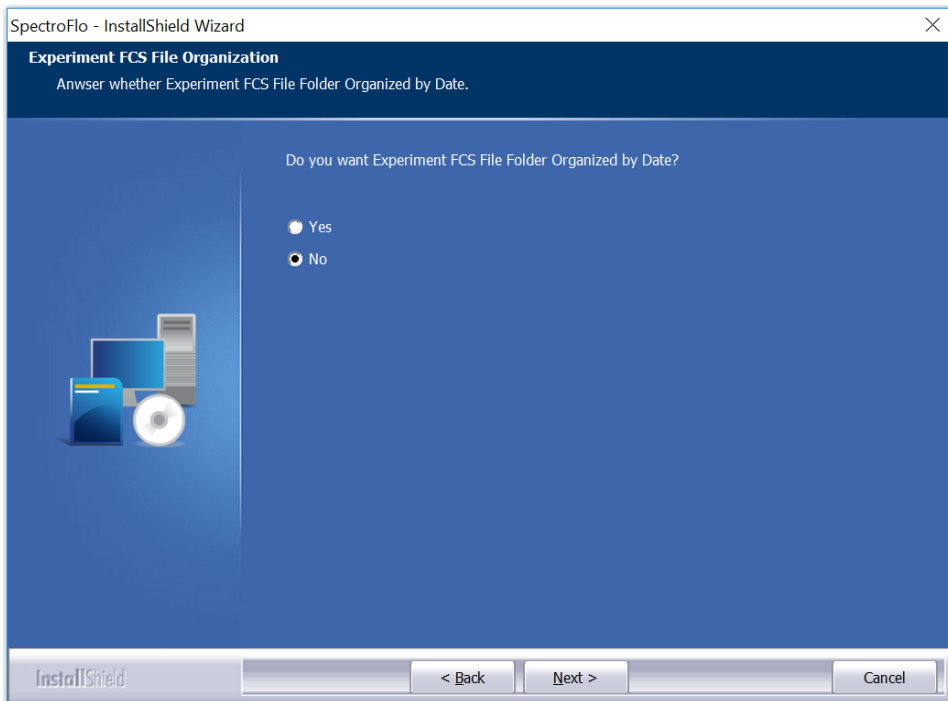
3. Click the "Next" to continue.



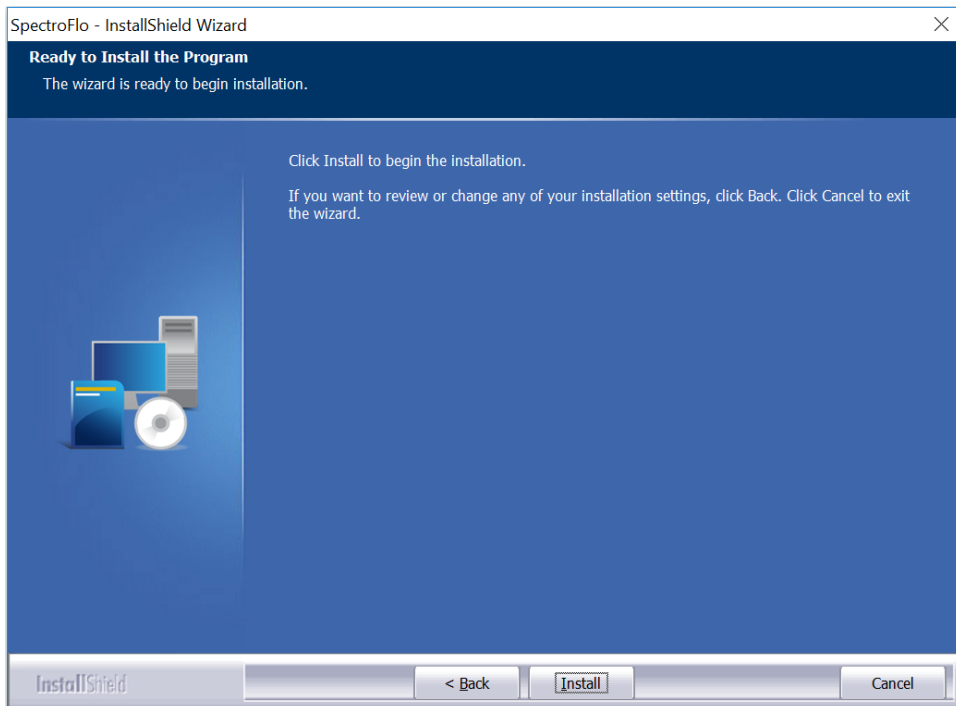
4. Choose "Yes" if there is a plate loader. Otherwise click "No". Then Click "Next".



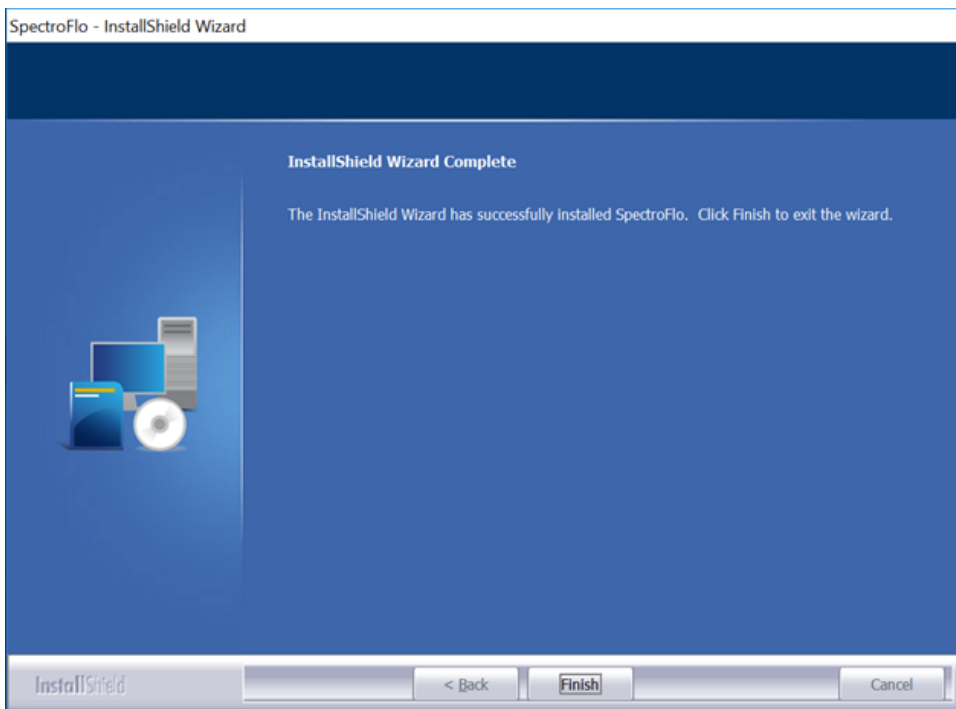
5. Choose "No" if you don't want experiment FCS file folders are automatically organized by date. Otherwise select "Yes". Then click "Next".



6. Click "Install" to begin the installation.

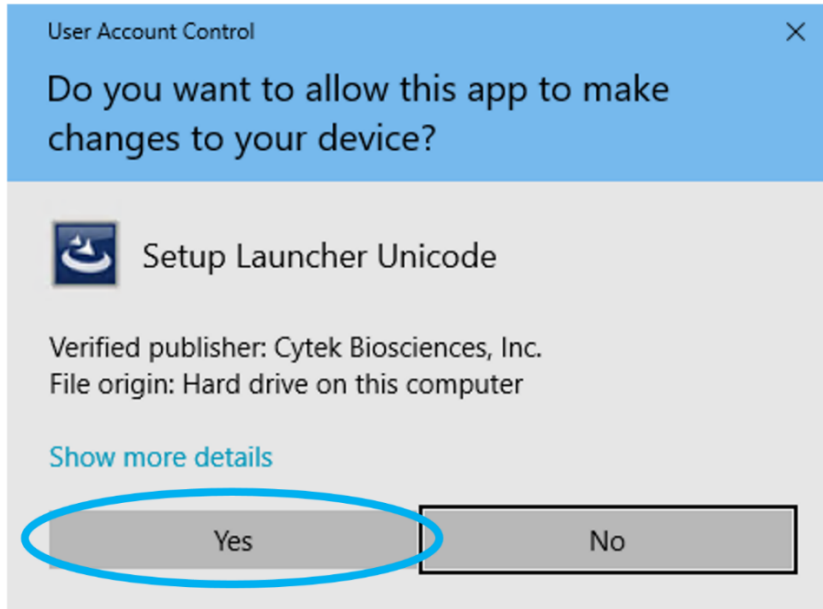


7. Click "Finish" to finish the installation.

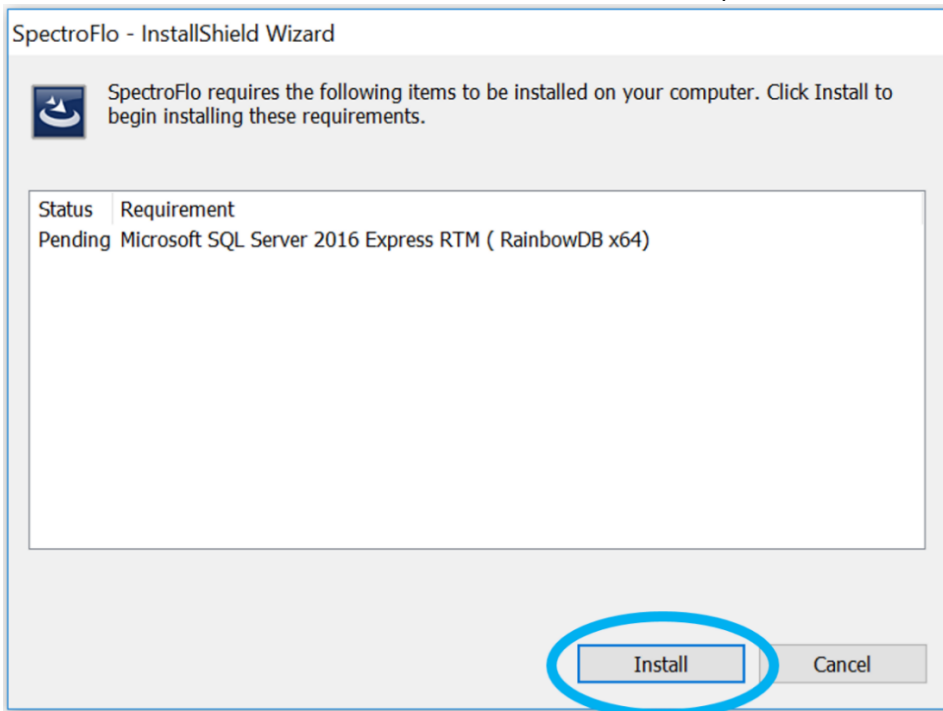


### *Installing SpectroFlo 2.2.0.4 on a New PC*

1. Download Setup\_Release\_2.2.0.4.exe and open it. Note: this screen may not show if your PC's user account control setting is set to "Never notify". If it appears, click "Yes".

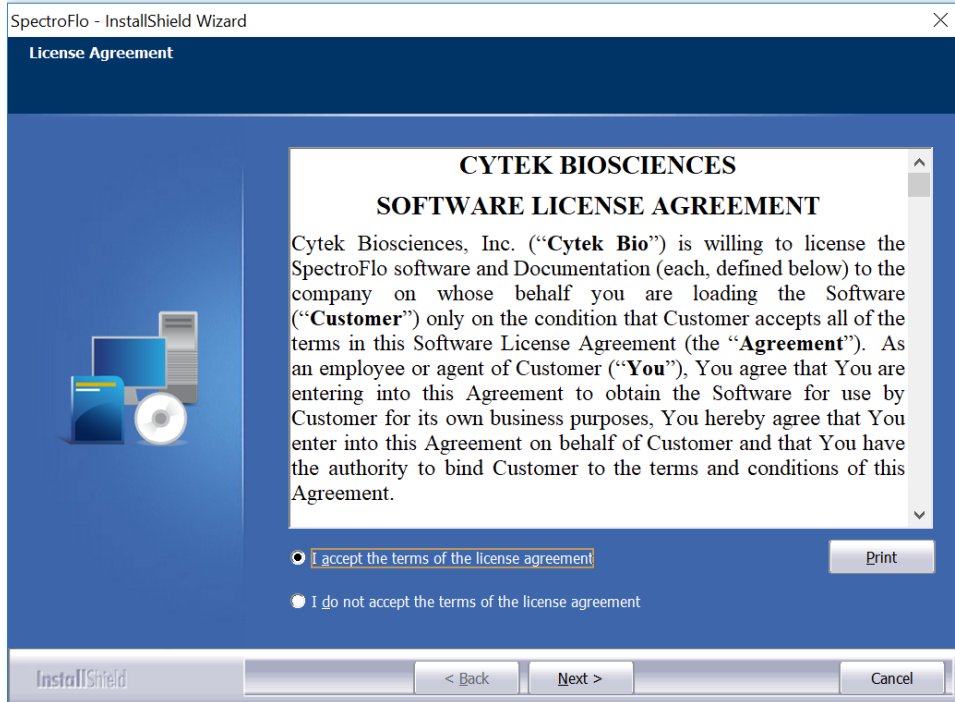


2. Click the "Install" to install Microsoft SQL Server 2016 Express RTM.

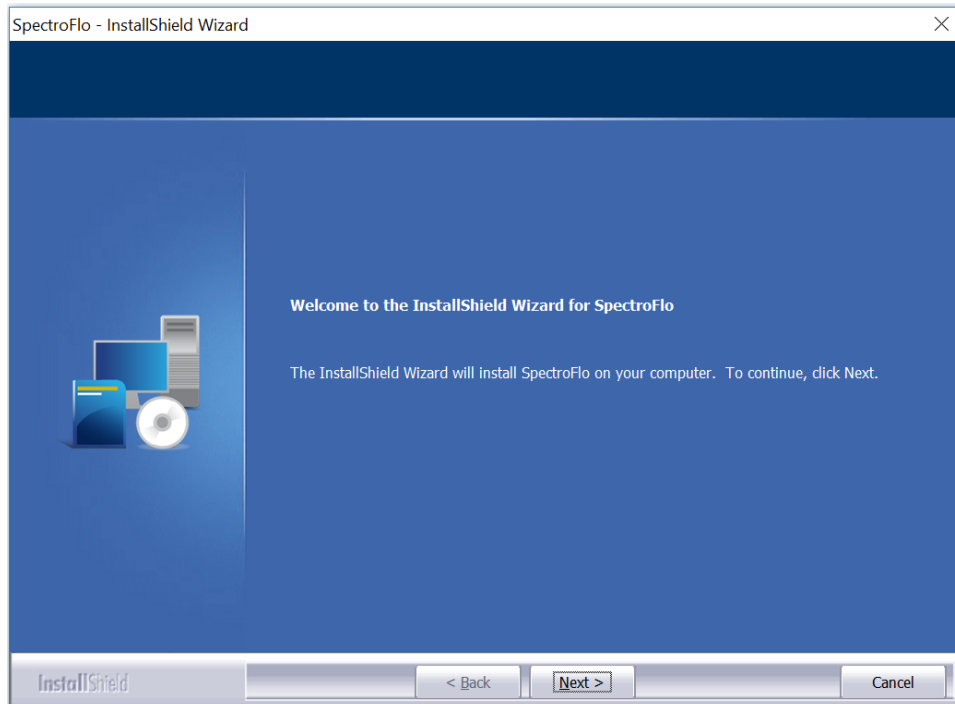




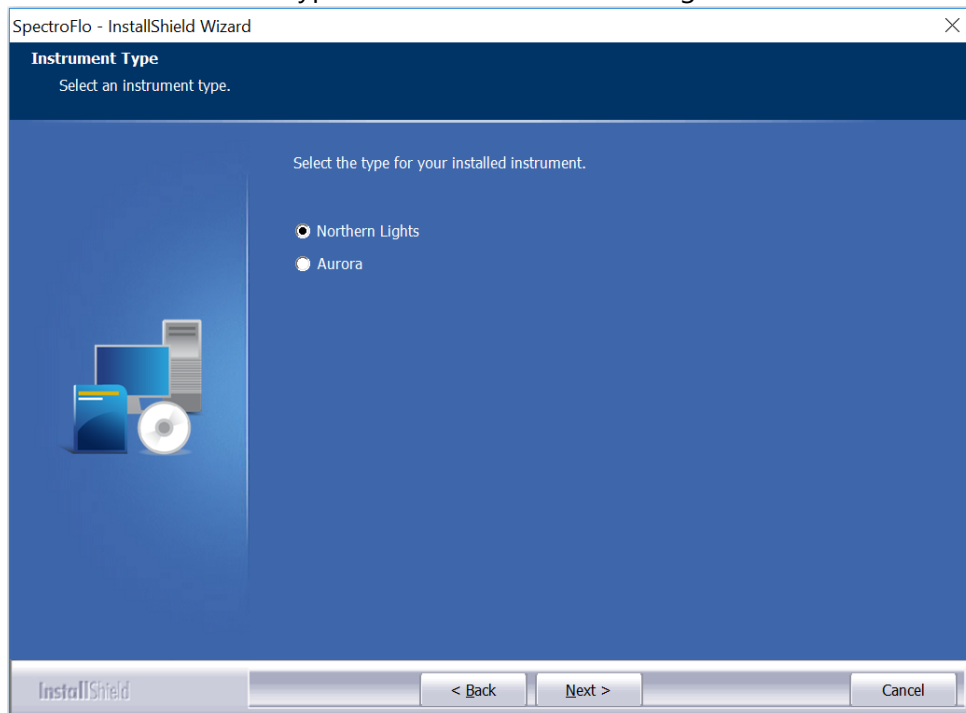
3. Select "I accept the terms of the license agreement" radio button, and then click "Next".



4. Click the "Next" to continue.

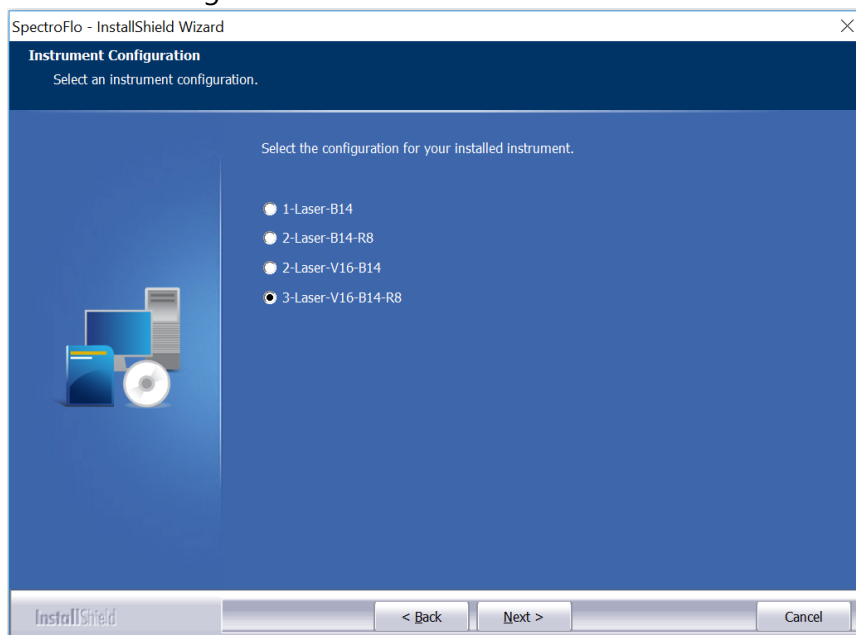


5. Select the instrument type that is either "Northern Lights" or "Aurora".

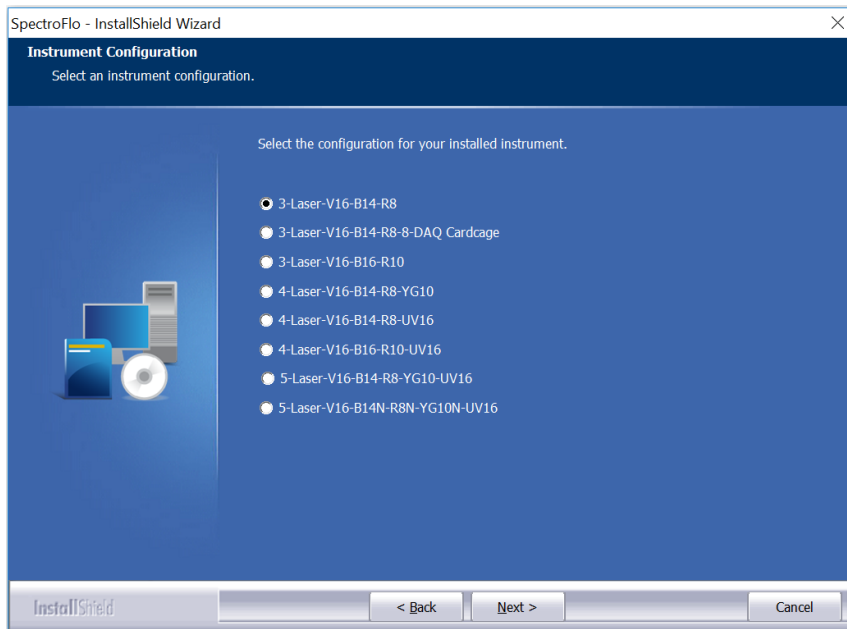


6. Select the configuration for your installed instrument. Then click "Next".

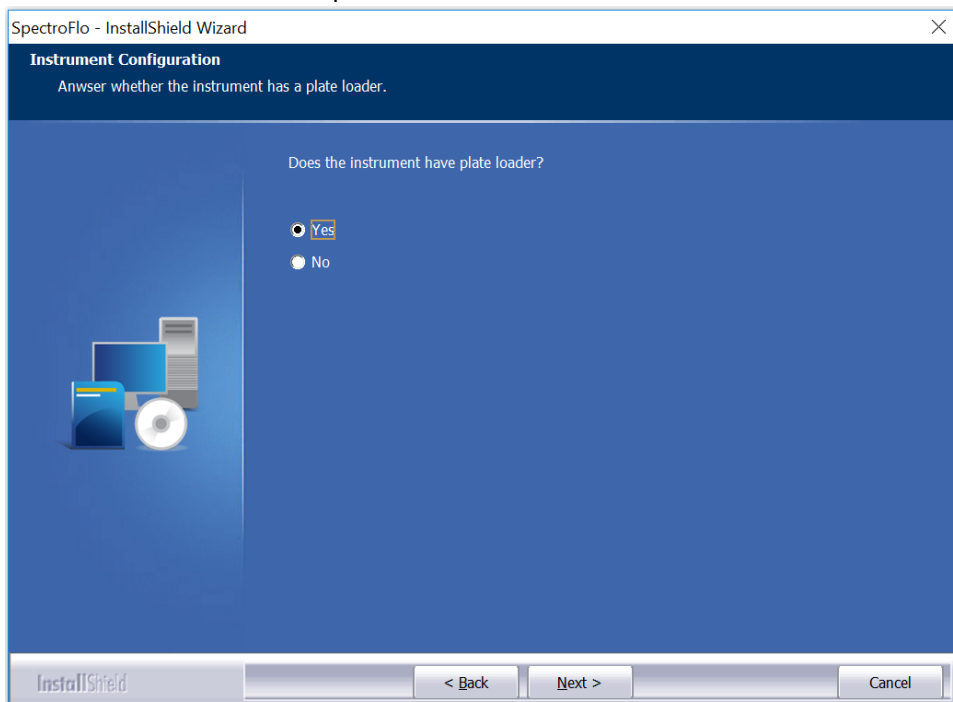
For Northern Lights:



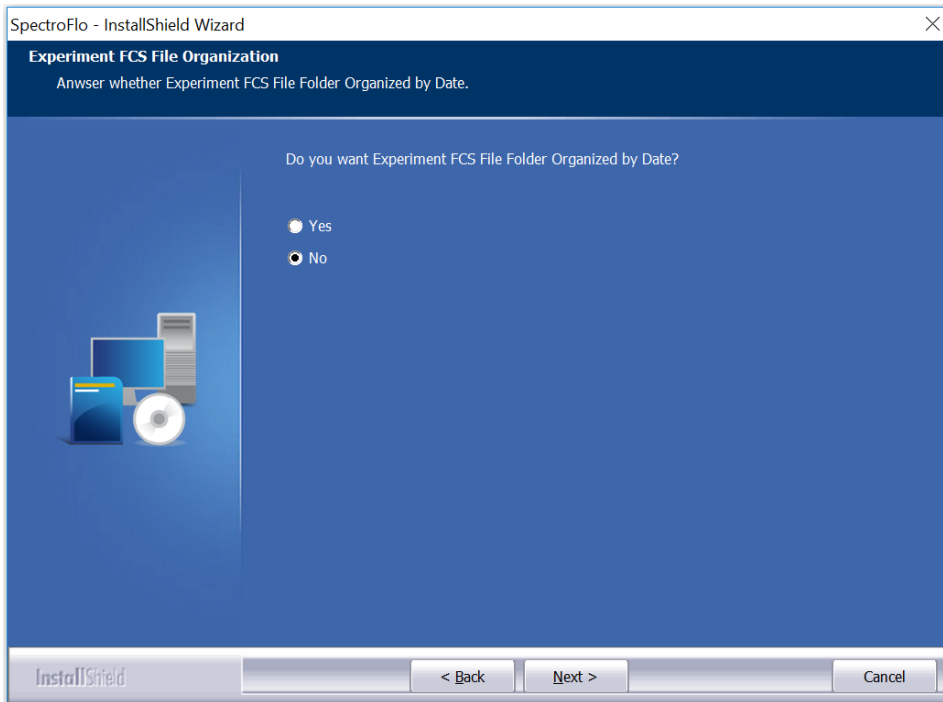
For Aurora:



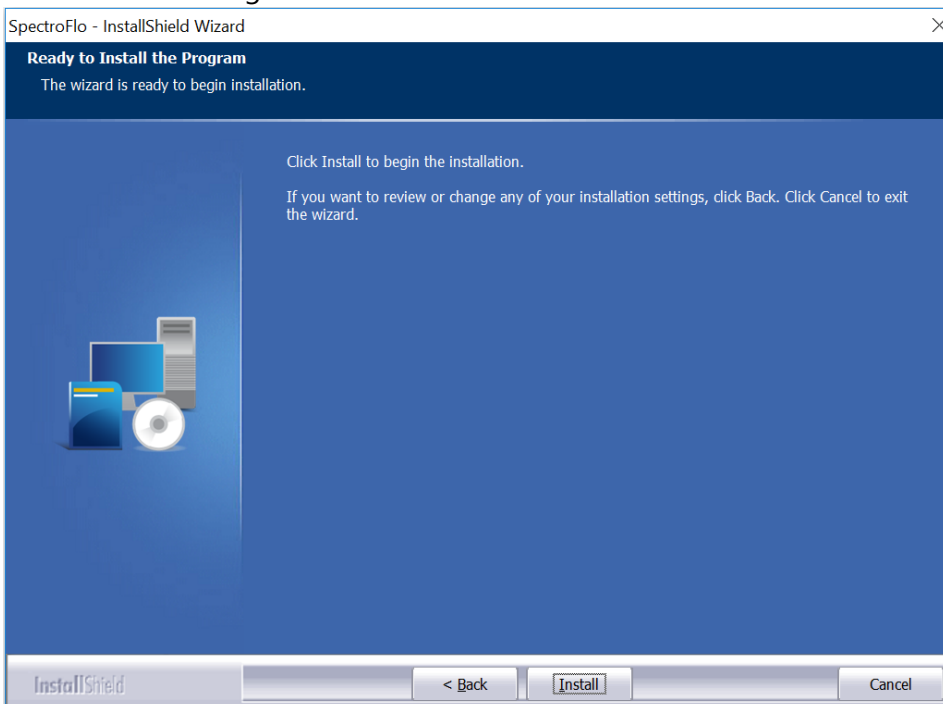
7. Choose "Yes" if there is a plate loader. Otherwise select "No". Then click "Next".



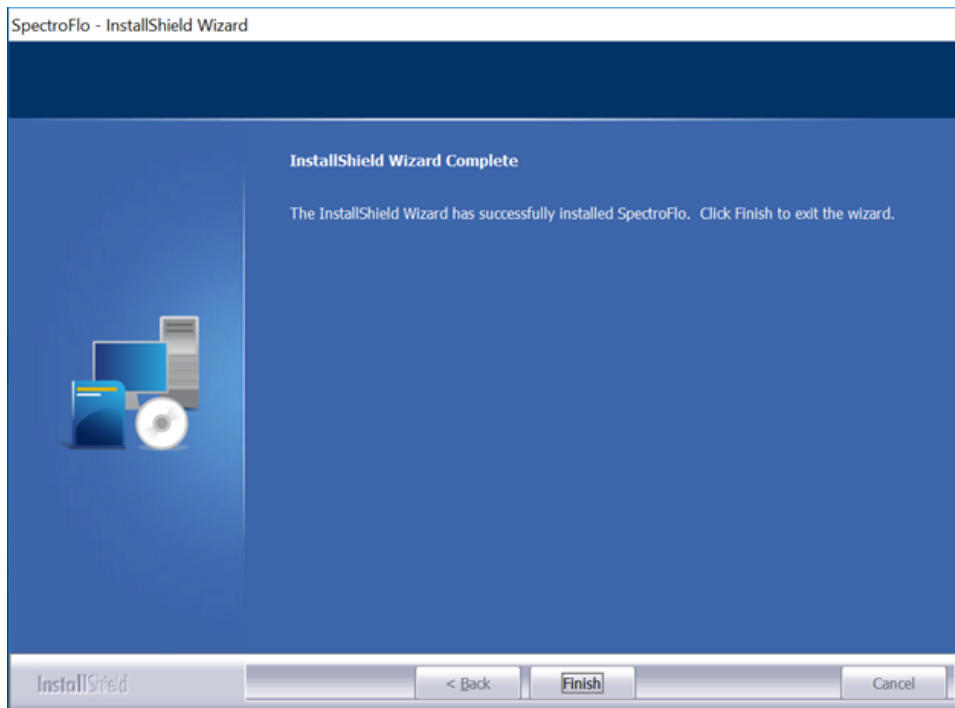
8. Choose “No” if you don’t want experiment FCS file folders are automatically organized by date. Otherwise select “Yes”. Then click “Next”.



9. Click “Install” to begin the installation.



10. Click “Finish” to finish the installation.





### *Installing SpectroFlo on a PC Inside a Network*

Step 1: Remove security policies around the devices needed to run the cytometer

There are 2 devices that are needed. One is a port that controls the fluidics, and another is a USB needed for data acquisition.

1. Find the fluidics port:
  - a. Open Windows 10 Device Manager:
  - b. Open Ports: see list of Ports
  - c. Disconnect the USB cable that goes from the instrument to the computer (there is only one cable going from the instrument to the computer, that is the one you need to disconnect)
  - d. As soon as you disconnect, you will see one of the Ports originally listed disappear (it varies across systems, it can be COM 3 or COM 6, for example). That is how you identify the first port for which you need to allow user access.
2. Next, you need to identify the second device:
  - a. Still under Windows 10 Device Manager, go to Universal Serial Bus Controller: in there, find Cytek Aurora DAQ. This is the other device you need to allow user access.
  - b. Once user access has been allowed for these 2 devices, open SpectroFlo software, login as Admin, turn on the cytometer and see if you can connect to the cytometer.

Step 2: If step 1 fails, and you still cannot connect the cytometer, please try removing the computer from the network and running it as a local machine. Ideally, we would like to login the computer as we originally did, Username: Aurora User, Password: Welcome#1. Also, please make sure that you login to SpectroFlo as Admin.

Step 3: If step 2 fails, then we would like to get a log file that will allow us to see what prevented the connection. The log file can be found under C:\CytekbioExport\ApplicationLog\_MM YYYY.txt. If there are several of these log files, please copy the latest one and send it to Cytek for assistance.

Have Questions? Comments? Want to work with us? Visit us at [www.cytekbio.com](http://www.cytekbio.com).