SphereFlash® Colonies Software Basic Instructions for Use

Automatic Colony Counter

Doc. 50007937-07

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INTRODUCTION OF THE INTRODUCED MODIFICATIONS

If it's the first time that you use SphereFlash, please read the entire document carefully.

If it's not the first time that you use SphereFlash and you use it before, in the table below you can read the indication of the introduced modifications

Revision	Description of change
07	Update format
	Section 2. Computer requirements
	Section 6.5 Printing and exporting results

1. INTRODUCTION

Thank you for choosing the SphereFlash®. We are confident that this instrument will become an integral part of your laboratory.

Before installing and using the SphereFlash® Colonies software, using the SphereFlash® instrument, it is essential that you read the SphereFlash® instrument Instructions for Use carefully. Following the instructions and safety information in these Instructions for Use will ensure safe operation and maintain the system in a safe condition.

1.1. Intended use of the SphereFlash®

The SphereFlash® is an automatic colony counter that meets all the requirements that may be required in a modern microbiology laboratory.

With its SphereFlash® Colonies LITE Software, it performs colony counting simply and reliably thanks to its world-class software and its patented built-in lighting system.

For more demanding users the software can be upgraded to the SphereFlash® Colonies PRO Software to increase its capabilities, e.g., setting user's permission levels, LIMS connectivity, worksheets, barcode reading, reporting, audit trail, or CFR21 Part 11.

With the optional SphereFlash® Halos PRO Software, the SphereFlash® unit can be transformed to measure inhibition halos, accepting various circle approximation criteria to obtain the corresponding diameters of virtual circle areas.

In all versions, the lighting is done through LEDs that are oriented to the internal wall of a moving spherical chamber. The result is an unprecedented uniform and reflection-free illumination in a colony counter device.

The moving sphere closes the chamber and prevents the area in which the Petri dish is located from any external light. It avoids any reflection or interference from external light, creating a luminous atmosphere without reflections from the walls of the Petri dish or the colonies. For the transparent media, the light by transmission is also available in all versions.

2. COMPUTER REQUIREMENTS

To install and run the SphereFlash® Software, the computer must meet or exceed the following requirements:

Processor	x64, 2.5 GHz
Operating System	Microsoft 64-bit Windows 7, 8.1, 10, 11 (x64 platforms) System type: 64-bit Operating System
Interface	1 free USB 3.0 port
RAM	8 Gigabytes
Free disk space	Application: 100 Megabytes Database: 10 Gigabytes (for 5000 results stored w/images)
Screen resolution	Full HD (1920 x 1080px) (recommended)
Screen size	24'' (recommended)
DVD reader	For the installation of the software[1]
Optional third-party applications	• Microsoft Excel® 2007 or higher, 64bits (to open exported Excel files) • A virtual PDF printer such as PDFCreator (to create PDF reports) • Adobe Acrobat Reader DC® 2015 or higher (to digitally sign PDF reports)

[1] *Alternatively you may transfer the files from the DVD to a USB memory stick in another computer, and then install the software onto the destination computer from the USB memory stick; see section 3.1.*

3. SETTING UP THE APPLICATION

NOTE 1: You can skip this section if an IUL representative staff has already installed and set up the application for you.

NOTE 2: For the initial setup of the application, you should be authorized by your company's management to act as administrator of the SphereFlash® software.

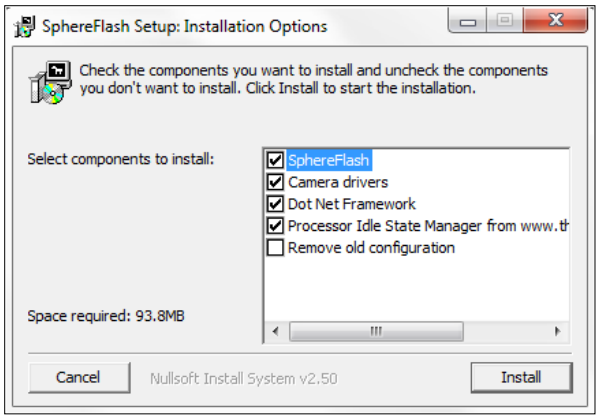
3.1. Installation of the software

Insert the supplied DVD into your computer's DVD reader, and let it execute automatically the installation procedure.

Alternatively, obtain the installer executable file *SphereFlash_Installer_vn.n.n.n.exe*, copy it into a local folder of your computer, and double-click on this file.

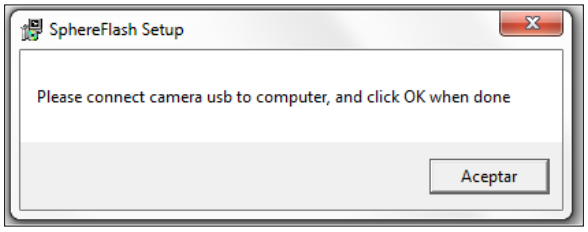
Follow the instructions given on the installer dialog appearing on the screen.

In the first installation, it is recommended that you leave the checkboxes with the default values. If your computer is equipped with an Intel Core i3 processor or similar, we recommend that you keep checking the *'Processor Idle State Manager'* checkbox.



NOTE: Do not check the box *Remove old configuration* unless you are aware that all the results and methods previously stored in the database will be erased.

Power the SphereFlash® instrument using the mains adaptor and pressing the ON button, wait until the status lamp of the instrument starts blinking, and plug the USB cable into a free USB 3 port on the computer when required:



Accept when required and let the installer complete all the required steps until a finish message is displayed.

Now your desktop should contain a new shortcut for the SphereFlash ® software:

3.2. Colonies LITE and Colonies PRO versions

To take full advantage of all the features of the *SphereFlash® Colonies PRO Software* license version, you need to introduce an activation key. Without an activation key, the application will run the default *SphereFlash® Colonies LITE Software* license version, where a basic subset of features is available. The activation key is particularized for your SphereFlash® instrument serial number.

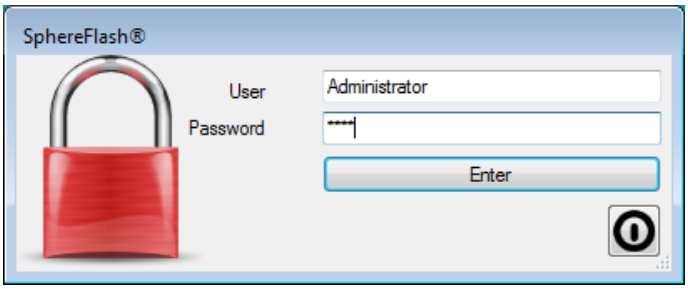
NOTE: If the instrument is not reachable by the software, the application will run in *LITE* mode, because the activation key can not be verified without an instrument.

NOTE: This guide mostly refers to the features available to the *SphereFlash® Colonies LITE Software* license version, but some of the features described in this guide could only be available to the *PRO* version.

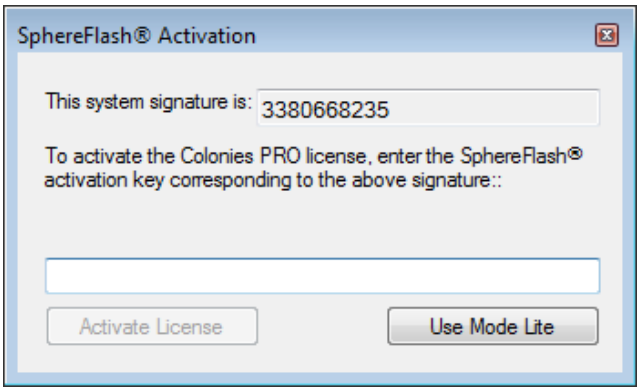
3.3. Log in and enter the activation key

First, make sure that the instrument is powered on, its lamp is slow-flashing, and its USB3 cable is connected to a USB3 socket of the computer.

Double-click the SphereFlash® shortcut icon; the application will open and a login dialog will be displayed. In the *User* box, type in *'Administrator'*, introduce the Password *'1234',* and press enter.



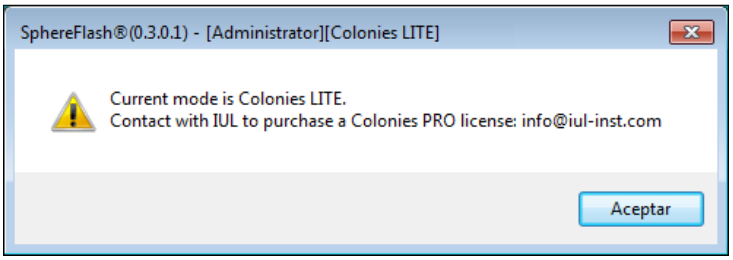
A SphereFlash® Activation dialog will appear:



To activate the *SphereFlash® Colonies PRO Software* license, copy or write down the displayed '*system signature'* and send it to an IUL representative along with the serial number of your SphereFlash® instrument. In return, IUL will provide your personalized key, which must be introduced in the bottom box field, and then press *Activate License*.

If you don't have a *PRO* license, you may still run the default *SphereFlash® Colonies LITE Software* license version, where only a basic subset of features is available; to activate the *LITE* license, click the button *Use Mode Lite.*

If you fill in a wrong Activation Key or the instrument is not connected to the computer, the application can still run in *LITE* mode:



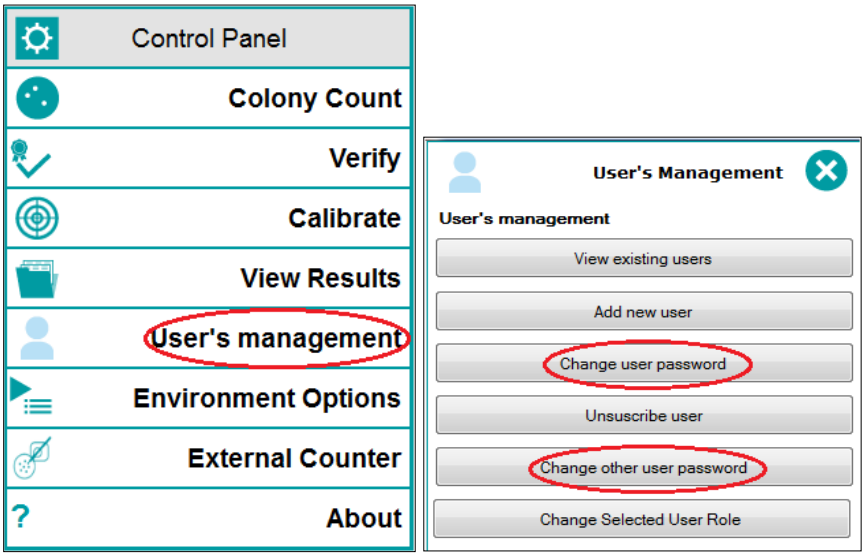
NOTE: Communication Issues. If you get a message warning about communication errors with the instrument, it's advisable that you check whether the computer firewall is blocking the access of the IUL application to the instrument (the SphereFlash ® instrument implements a private IP network, with address 192.168.233.1, which is tunneled through the USB 3 connection). Please refer to the Troubleshooting section on the Instrument Instructions for Use.

3.4. Changing usernames and passwords

The application, after the first setup, has three default users (*Administrator, Programmer,* and *Operator*), one for each role (permission level), and all of them share the same default password *'1234'.*

It is advisable that during the setup you change the name and passwords of each of them. Later, you will be able to create new users, reassign roles and change passwords[1].

To change the passwords, select *Users management* in the control panel. The '*User's management'* panel will appear where you can change the password of the current user and that of the other default users:



NOTE: Some of the functionalities described in this guide may not be permitted to users other than Administrator*.

Finally, you can return to the main control panel screen by clicking the top-right cross

3.5. Management of failed logins

When logging in, if the user enters a wrong password, there are two more attempts left until the access is blocked for this user. After blocking, a period of time has to be elapsed until the user is automatically unblocked and will be able to re-try login.

If the user definitively forgets the password, the administrator can create a new password for the user*.

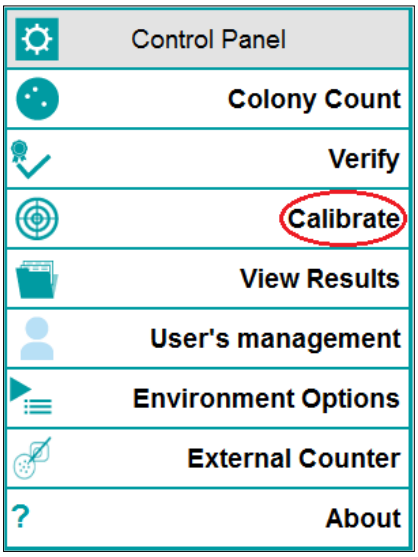
If the administrator forgets his password, please contact IUL technical service to require and arrange a *Remote Recovery Session.* It is highly advisable to register two or more users with the administrator role[1].

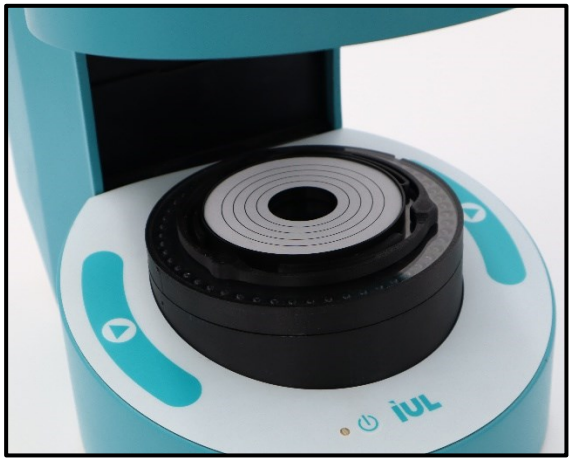
[1] *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. 50007939.*
[1] *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*

3.6. Automatic calibration of the SphereFlash® instrument

Each time the application finds a SphereFlash® instrument that has not been used before, a calibration is requested. Calibration is also routinely requested after some scheduled days have elapsed since the last calibration.

To perform an automatic calibration, select *'Calibrate'* in the top-right control panel and insert the calibration disk ref.900010081 on the platform:

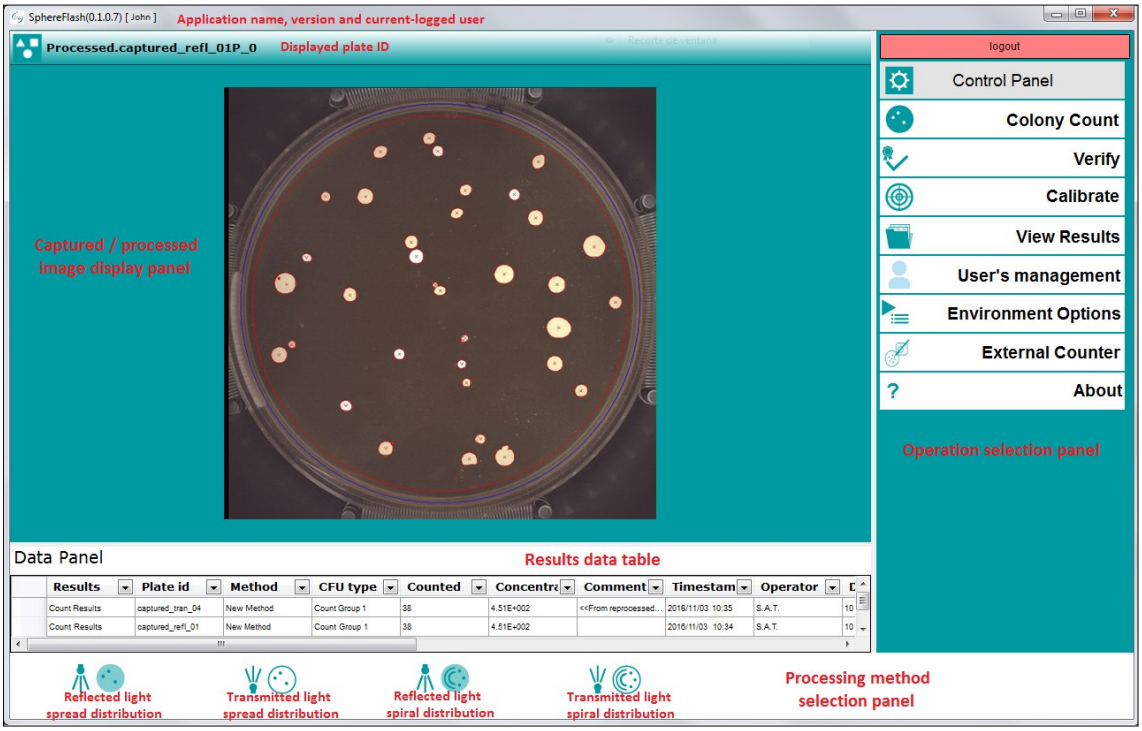




Push the Run button on the bottom right: . The instrument will proceed to perform several image captures, and finally, an image of the calibration disk will appear on the Image Panel.

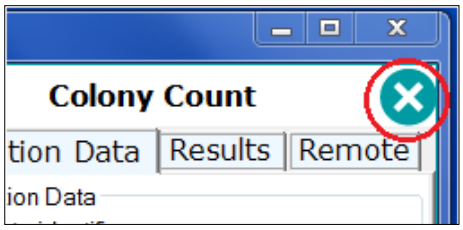
You will be prompted to accept the calibration by means of the Accept button: . Now the application is ready to count colonies on your Petri Dishes.

4. OVERVIEW OF THE USER INTERFACE

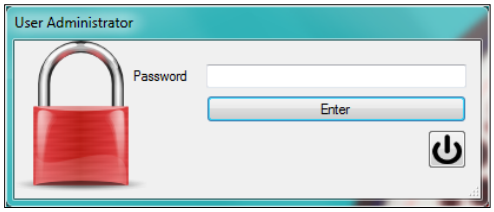


By hovering the cursor over the buttons and controls, a tip will be displayed summarizing their function or purpose.

When a particular operation panel is displayed, you can return to the selection control panel by clicking on the top-right 'X' cross icon:



After a time of inactivity, the application becomes blocked and the user is required to re-enter their password into a re-login dialog:

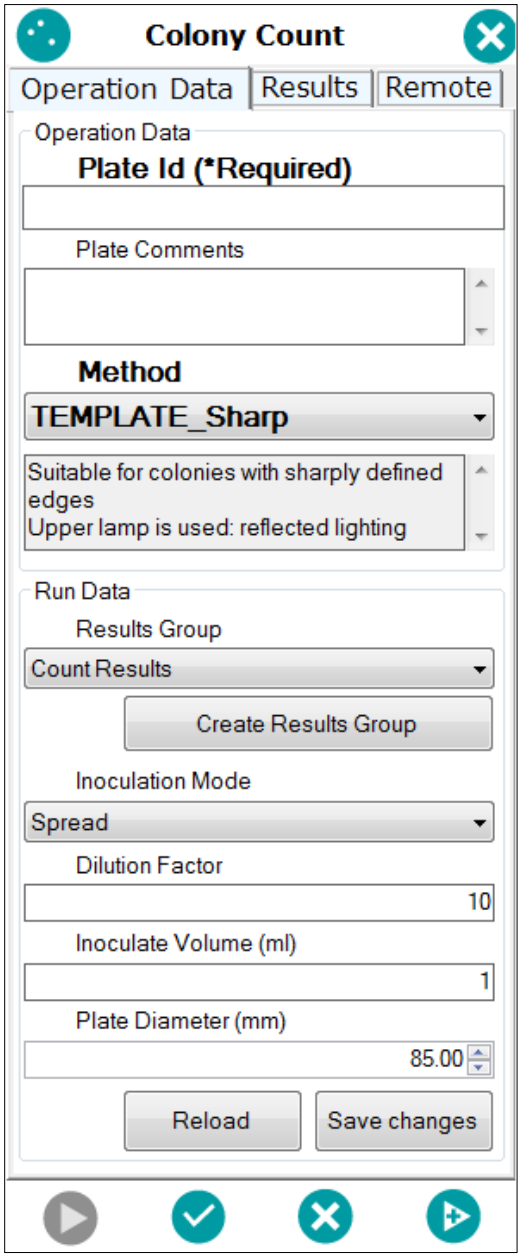


5. COLONY COUNT OPERATION

5.1. Basic count operation with default settings

Insert into the instrument the plate you want to be counted.

On the Control Panel select *Colony Count*, then the *Operation Data* tab will appear:



5.1.1. Entering the operation data

Operation data

Plate identifier: Type in the plate id number or text box. You can use a barcode reader to automatically fill the field*.

Method: Name the set of settings that will be used to count the colonies of the plate. The built-in default *TEMPLATE_Sharp* is appropriate for a first try, later you can refine the settings or try another method (see section 5.2). Below, there is a text box describing the purpose of the method*.

Comments: Here you can type any comment you want to be saved along with the results of counting this plate.

Run Data

Results Group: This is a label or tag that can be applied to the result, allowing subsequent grouping or filtering of the results. The default group is *CountResults*, but you can select any other from the list, or create a new group by pushing the ***Create Results Group*** button at the bottom.

Inoculation mode: Select either spread (default) or one of the listed spiral modes, matching the way that the current plate has been inoculated.

Dilution Factor: Type in the dilution factor of the sample that was inoculated into the plate.

Inoculate volume: For spread distributions, type in the total sample volume inoculated into the plate (for spiral distributions, this volume is implicit according to the chosen distribution).

Plate Diameter: Enter the inner diameter of the plates you are using (inner distance between the lateral walls).

NOTE: There are some limitations to the extent that the Plate Diameter can be modified in this panel; this setting can be controlled in a more complete way.

Reload: By default, the selected or typed-in run data are kept for the subsequent plates to be counted. Pressing this button will restore their default values.

Save changes: Press this button to create a new method similar to the previously used but establishing as default the modified values of *Run Data* (*Operation Data* tab) and *Run Input Values* (*Results* tab).

NOTE: Default *Run Data* values, and whether they can be edited or not by the user, are options that can be defined for each method*.

* *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*

5.1.2. Running a Colony Count operation

You cannot run a *Colony Count* operation until the field *Plate ID* has been filled in, either manually, by a barcode reader, or using the autoincrement feature*.

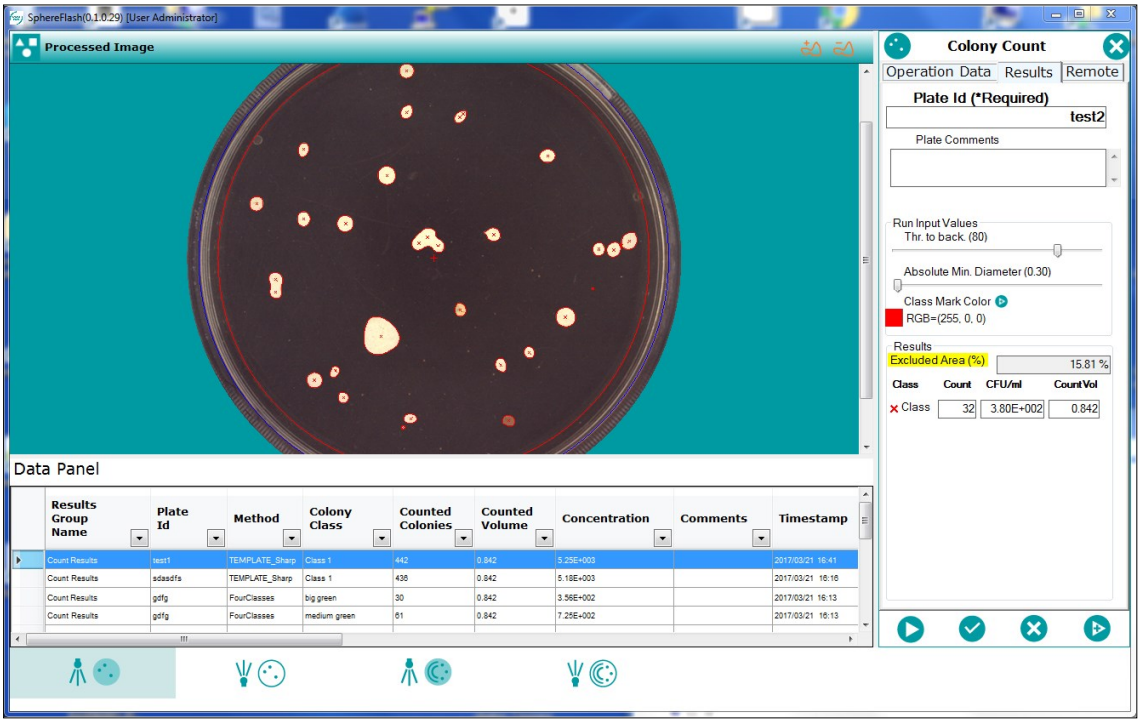
Push the Run button: on the bottom right of the application window, or any of the two Run buttons: on each side of the instrument.

The instrument will lower the diffusing sphere, take a picture and raise the sphere again. Then the image will be processed, and the counting results will be displayed, both graphically on the image display panel and on the *Results* tab panel which will be automatically selected.

To accept the results and store them in the database, press the Accept button: . If you want to reject the results, press the Reject button: .

NOTE: If you press the *Run* button without having accepted or rejected the previous result, it will be automatically saved as accepted.

5.1.3. Understanding the count results



The image of the processed plate is displayed with some color overlays:

- The blue circle corresponds to the *Plate Diameter* set on the *Operation Data* tab, which defines the plate inner diameter of the plate between walls, inside which the inoculated volume has been spread.

- The red circle defines the region inside which the colonies will be counted; this red circle is placed some distance away from the plate walls to avoid artifacts being counted as colonies.

  The user is allowed to change the diameter and location of this circle (see section 5.1.4). The counted volume is adjusted according to the red circle area.

- The contour of each detected colony or cluster of overlapped colonies is outlined using the *Class Mark Color*.

  Visible would-be colonies may not be detected (not outlined) for different reasons:
  - The colony is not contrasted enough against the background (see section 5.1.4).
  - A color filter has been defined and the colony color doesn't correspond to any of the accepted colors*.

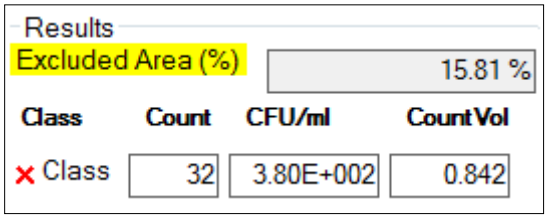
- The center of each counted colony is marked with an 'x' cross using the Class Mark color.

  Detected colonies (outlined) may not be counted (no cross) for different reasons:
  - The colony center is outside the red circle.
  - The colony size is outside the range set by the minimum and maximum diameters in the method* or in the *Run Input Values* (see section 5.1.4).
  - The colony center is inside an excluded region interactively drawn by the user (see section 5.1.4).

By right-clicking on the plate image, you can zoom it, display the raw captured image without overlays, or export it to a file or the clipboard.

By pressing the mouse wheel, you can pan (displace) the image, and by rotating the mouse wheel when pressed, you can change the image zoom.

On the right panel *Results* tab the count results are displayed:



Results

Excluded Area %: shows the percentage of the plate area (blue circle) that has been excluded to count colonies in order to avoid artifacts, either outside the red circle or by manual exclusion if the interactive feature was used (see section 5.1.4).

Class: refers to the name of each colony class that has been counted separately according to color or diameter*. By default, as in the example, there is only one colony class.

* *See Advanced Instructions for Use Guide – SphereFlash Colonies Software, Doc. No 50007939.*

Count: shows the number of colonies that have been found inside the red circle, and possibly by manual inclusion/exclusion if the interactive feature was used (see section 5.1.4).

CFU/ml: displays the resulting concentration in colony-forming units per ml (= *Count x Dilution Factor / Counted Volume*).

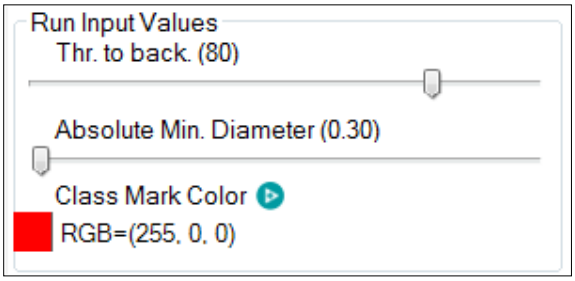
Count Vol: corresponds to the sample volume contained inside the plate regions effectively counted (inside the red circle and excluding the interactively excluded areas, see section 5.1.4). For spread distributions, *Count Vol = Inoculated Volume x (1 – Excluded Area.* For spiral distributions, only the volume of the spiral rings effectively counted is taken into account.

NOTE: For spiral distributions with exponential/logarithmic progression, colonies are counted from the outer ring inwards, stopping at the ring where a prescribed count has been exceeded, according to the usual counting rules for spiral distributions (20 CFUs in a 1/8 sector = 160 CFUs in the full 360º).

5.1.4. Refining the results with Run Input Values and interactive modification

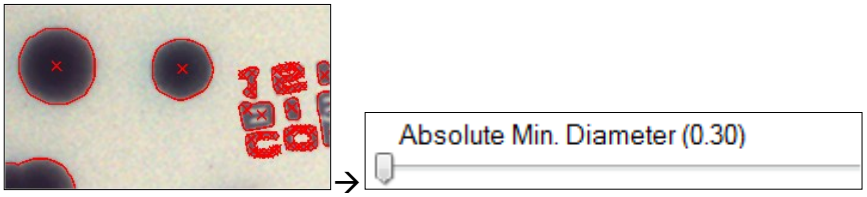
After the results of a *Colony Count* have been displayed, you have the option to refine the results, either by changing some input values or interactively drawing on the results image.

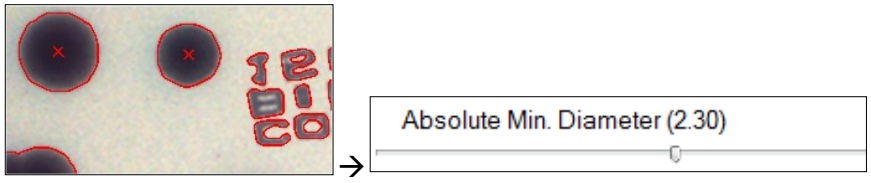
Run Input Values



Class Mark Color: You can change the color of the colony outlines and crosses by clicking on the button, and selecting the color from a palette.

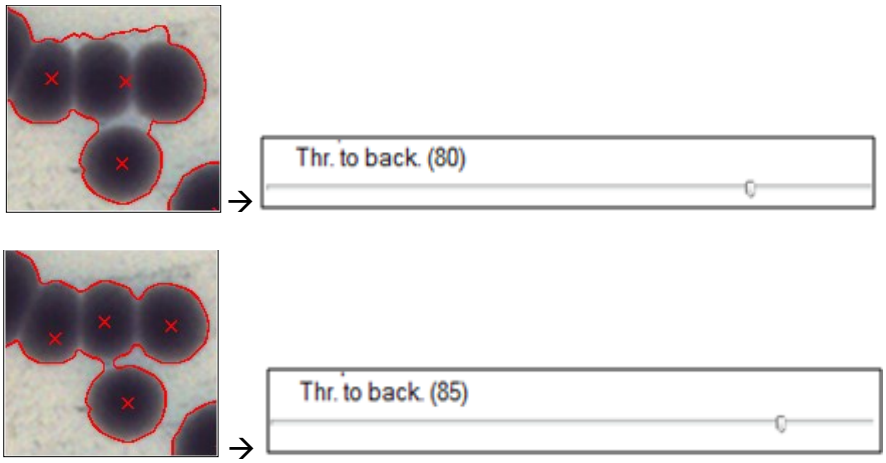
Absolute Min. Diameter: To filter out artifacts that are smaller than the colonies, you can increase the minimum diameter required to qualify a colony:





NOTE: With this control, you can only increase the minimum diameter established by the method in use. To decrease the minimum diameter you must edit the method*.

Thr. to back: you can establish a suitable threshold for the contrast between foreground and background to better separate the colonies from artifacts and shadows on the agar:

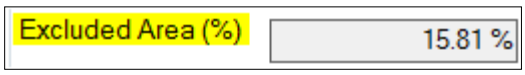


NOTE: Default *Run Input Values,* and whether they can be edited or not by the user, are options that can be defined for each method*.

Interactive Count Modification

Only colonies whose center is located inside the red circle are counted.

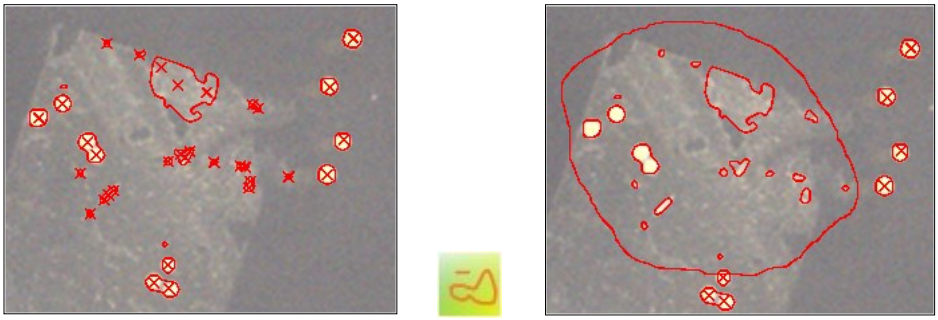
To manually exclude selected regions from being counted, click on the *Excluded Area %* label; its background will become yellow:



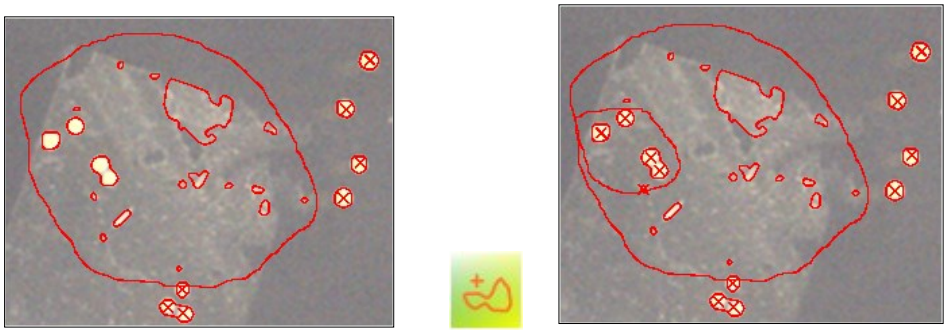
The following icon will appear on the right side of the green top bar of the image panel:

Select the minus '-' curve symbol, and now you can draw a free-hand closed curve enclosing the region you want to be excluded from counting:

* *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*



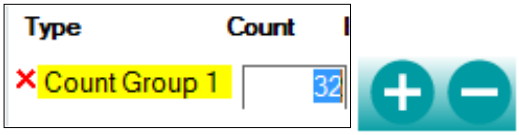
Similarly, by selecting the plus '+' curve symbol you can define a region inside the excluded one, to still allow counting colonies inside it:



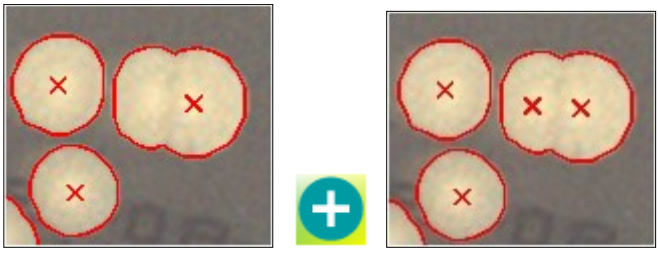
When *Excluded Area* is yellow-selected, you can also **resize and displace the red circle** as a way to avoid artifact regions close to the plate walls.

The effective *Counted Volume* will be computed according to the plate areas that have been included and/or excluded.

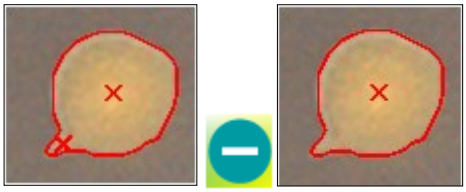
To manually mark an individual colony to be included or excluded from the count, click on the label of the desired colony *Type*; its background will become yellow. A '+ -' icon will appear on the right side of the green top bar of the image panel:



Select the plus '+' symbol, and now you can click the points on the plate image where you want a new colony to be counted:



Similarly, select the minus '-' symbol, and now you can click the colonies on the plate image you want to be removed from the count:



If the count has been interactively modified, when saving the results the contents of the field *Comment* will be appended with the message: <<*Interactive changes have been made*>>. Later you can re-display and compare the stored versions of the captured (raw), automatically processed (not interactively modified), and manually modified images to see the changes applied.

5.2. Selecting and using different methods for counting

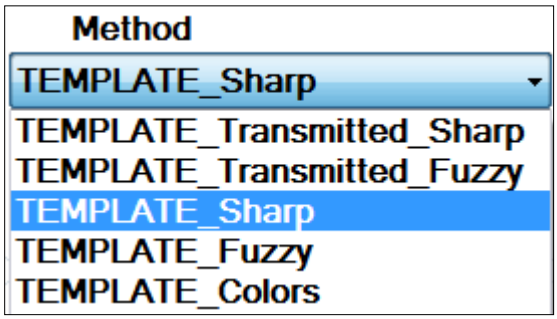
A *Method* is a named collection of settings and it is suited to count colonies for a range of plate, colony, and procedural particular conditions.

The SphereFlash® application is natively equipped with several general-purpose methods that cover some of the usual plate appearances that can be found in normal usage. These native methods are ready-to-use or can be used as templates to modify some of their settings to create new methods.

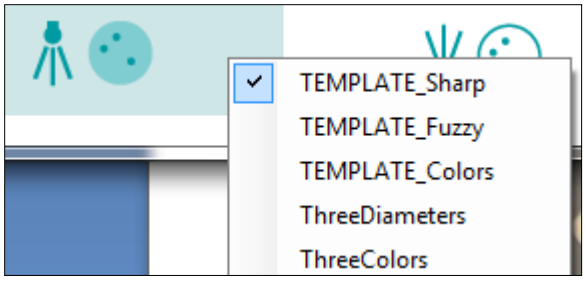
5.2.1. Selecting a method

There are three ways to select a particular method to count colonies:

a) In the *Colony Count* panel, select the desired method from the drop-down list under the title *Method*:



b) In the bottom panel, right-click one of the four icons that group methods according to the lighting (top or bottom) and distribution (spread or spiral). You will get a list of the available methods of that group; select from it the desired method. The most recently used method from this group shows a selected checkbox:



c) In the bottom panel, left-click the desired icon to directly select the most recently used method from that group.

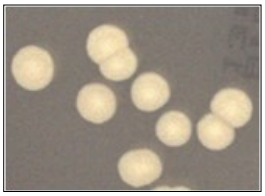
Whatever the way to select it, the selected method will then appear in the box under the title *Method* of the *Colony Count* panel.

5.2.2. Native built-in methods

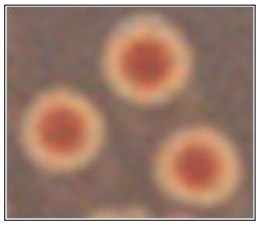
These methods are natively included within the application:

Using top light (reflection) for spread distributions

TEMPLATE_Sharp: Suited for colonies with sharp, clearly defined, and contrasted edges against the background:

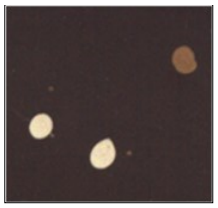


TEMPLATE_Fuzzy: Suited for colonies with fuzzy, blurred edges that make it difficult to determine the limit between the colony and the background:



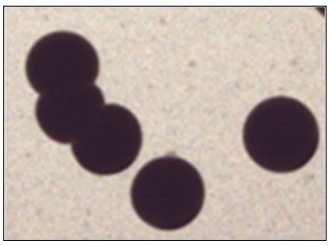
TEMPLATE_Colors and ***TEMPLATE_Fuzzy_Colors:*** Templates to build color-filtered methods, they don't work out-of-the-box, and need color specification by editing the method*. Similarly, as above, use the *TEMPLATE_Fuzzy _Colors* when the edges of the colonies are blurred.

* *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*

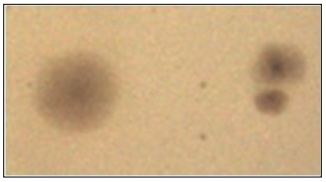


Using bottom light (transmission) for spread distributions

TEMPLATE_Transmitted_Sharp: Suited for opaque colonies with sharp, clearly defined edges against a transparent or translucent background:



TEMPLATE_Transmitted_Fuzzy: Suited for opaque colonies with fuzzy, blurred edges against a transparent or translucent background:



Using top or bottom light for spiral distributions

There are no native built-in methods for spiral distributions, you can use one of the spread methods and modify it to the desired spiral (see section 5.1.1).

5.2.3. Default counting behavior

The default counting behavior of the built-in methods corresponds to the so-called *Automatic Counting Mode*. With this mode, when the image is processed, the application counts either the bright colonies or the dark colonies, whichever has the higher count.

NOTE: There are some other *Counting Modes* available*: *Count All* (dark+bright), *Count only Bright*, *Count only Dark*, *Filter by Color,* and *Filter by Diameter*.

5.2.4. Modifying the settings of a method

As mentioned in sections 5.1.1 and 5.1.4 above, you can modify the default *Run Data* and *Run Input Values*, to adapt the colony count processing to the particularities of your plates.

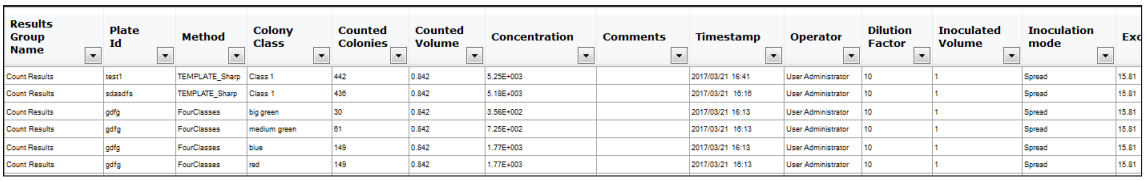
If you think that the modified values are well suited for a typology of plates, you can save these values into a new method which can be recalled later. Press the *Save Changes* button at the bottom of the *Operation* tab; you will be prompted to give a name for the new method and to enter a new description for the method.

Many other settings can be modified and tuned for a new method[*].

[*] *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*

6. MANAGING STORED COUNT RESULTS

6.1. Overview of the Count Results View



Results Group Name	Plate Id	Method	Colony Class	Counted Colonies	Counted Volume	Concentration	Comments	Timestamp	Operator	Dilution Factor	Inoculated Volume	Inoculation mode	Exc
Count Results	test1	TEMPLATE_Sharp	Class 1	442	0.842	5.25E+003		2017/03/21 16:41	User Administrator	10	1	Spread	15.81
Count Results	sdasdfs	TEMPLATE_Sharp	Class 1	436	0.842	5.18E+003		2017/03/21 16:16	User Administrator	10	1	Spread	15.81
Count Results	gdfg	FourClasses	big green	30	0.842	3.56E+002		2017/03/21 16:13	User Administrator	10	1	Spread	15.81
Count Results	gdfg	FourClasses	medium green	61	0.842	7.25E+002		2017/03/21 16:13	User Administrator	10	1	Spread	15.81
Count Results	gdfg	FourClasses	blue	149	0.842	1.77E+003		2017/03/21 16:13	User Administrator	10	1	Spread	15.81
Count Results	gdfg	FourClasses	red	149	0.842	1.77E+003		2017/03/21 16:13	User Administrator	10	1	Spread	15.81

In the *Data Panel* area below the image panel, there is a grid showing for each row one result previously stored. By default, the results are shown ordered by time of execution of the operation, the most recent above.

If one plate was processed using a method defining several *Colony Classes*[*], there will be several rows for the same plate, one row for each counted *Colony Class*.

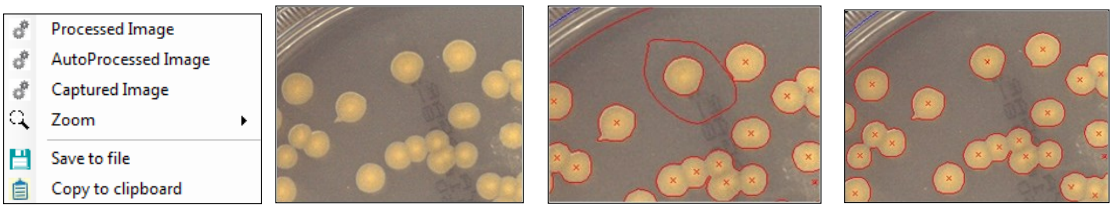
6.2. Fields displayed by the Count Results View

By default, the *Data panel* shows a view with all the data available for each stored result. This includes those of ***Operation Data*** *(Plate ID, Method, Comments)*, ***Run Data*** *(Results Group, Inoculation Mode, Dilution Factor, Inoculated Volume)*, ***Count Results*** *(Excluded Area, Colony Class, Counted Colonies, Counted Volume, Concentration*), and in a shared field, the particular ***Run Input Values*** used to process the current plate *(Thr. to Back, Plate Diameter, Abs. Min Diameter)*. Additionally, there is the serial number of the instrument used, the name of the user that operated, and the date and time of the operation (given in two versions, local time and UTC).

If one result has been interactively modified by the user (see section 5.1.4), the comment field will contain a mention of this interactive modification, the field *Counted Colonies* will show the colony count after the interaction, and the field *Count From Automatic Process* the colony count before the interaction.

[*] *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*

By clicking on a row, the image panel will display the image of the plate corresponding to that result. By right-clicking on the image, you can select to display either the *Captured* Image, the *Processed Image*, or the *Auto Processed Image*; the *Processed* and *Autoprocessed* images will contain overlays depicting colony contours and centers. In the case of interactive modification, the *Processed Image* will also show the manually excluded/included regions and the manually inserted/excluded colonies, whereas the *Auto Processed Image* will display the results as if no manual interaction had been made.



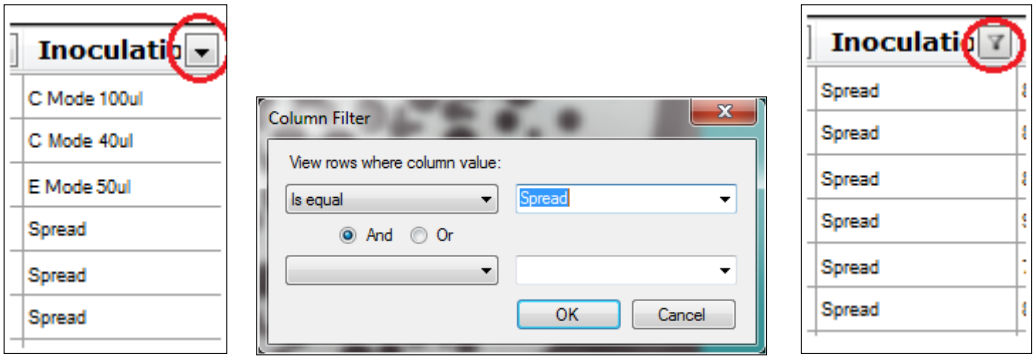
Captured Processed Auto Processed

6.3. Sorting, filtering, and selecting results on the Results View

There are horizontal and vertical scroll bars to aid in displaying all the columns and rows of the view.

By clicking on the header of a column, the view is reordered according to the contents of that column. The direction of ordering toggles each time the header is clicked.

By clicking the down arrow on the header of a column, you can establish the filtering criteria for that column; then the down arrow of the header will turn to a funnel icon and the view will show only the results meeting the criteria:



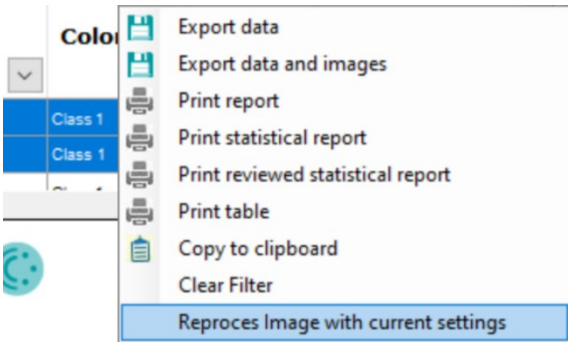
To remove all the applied filters, right-click on the view grid and select *Clear Filter.*

To select one of the results, click its row on the view. To select a contiguous range of results, hold the *Shift* key when clicking the first and the last results of the range. To add or remove one result from the selection, hold the *Ctrl* key and click the result. To select all the results in the (possibly filtered) view, click on the top of the leftmost column.

6.4. Re-processing the plate image of a stored result

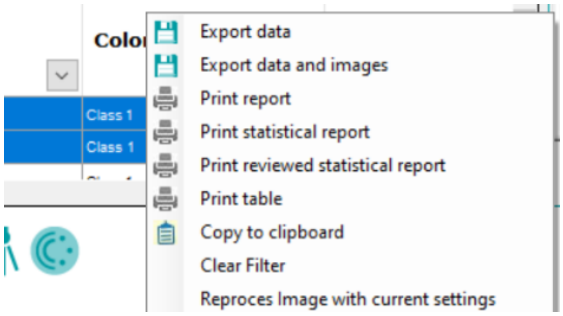
When in the *Colony Count* panel, you can recall the captured image of a stored result to re-process it with possibly different settings, and to store the new result as if its image had been obtained from a real plate with the instrument.

To perform this feature, first, select on the *Colony Count* the desired method and *Run Data* to be used, then right-click on the view row corresponding to the result you want to re-process and select *Reprocess Image with current settings*.



6.5. Printing and exporting results

After selecting a result or a range of results, you can print or export them in a diversity of ways. To access them, right-click on any of the selected rows:



Export data: A new file, containing the headers and the fields of the selected rows is created. The user is prompted to select the destination folder, the name of the file, and the type of file (XLSX: Excel, CSV: Comma-delimited, and TXT: Tab delimited).

Export data and images: same as above, but in addition, a sub-folder is created in the selected one, which contains the images of all the exported results, their file names being the same as those appearing in the corresponding fields of each result.

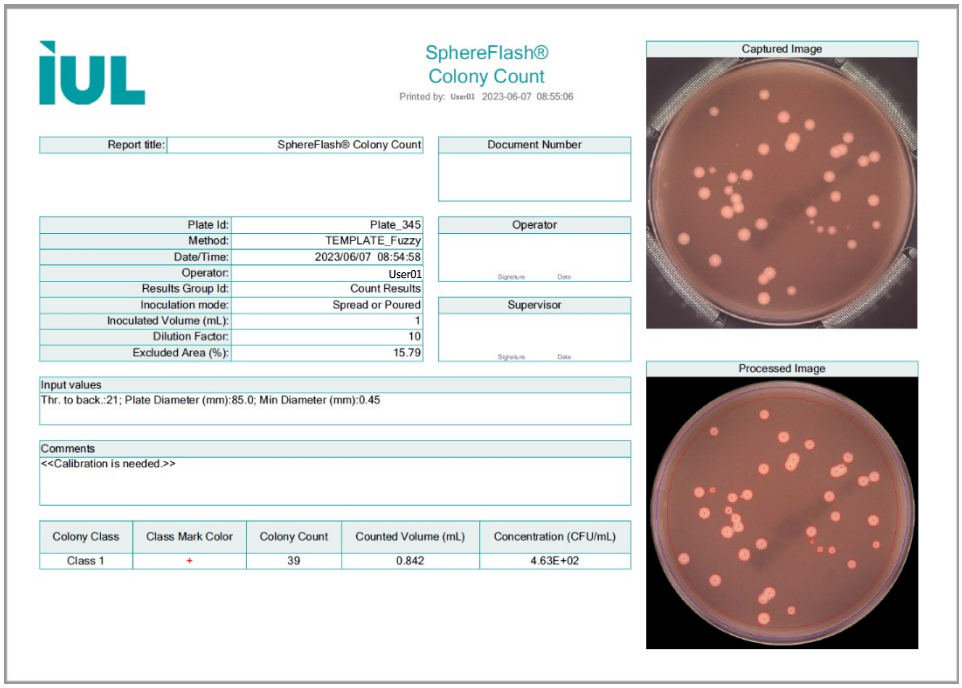
Print table: The current view with the selected results is formatted and printed in tabular form.

Copy to clipboard: The selected results are copied to the clipboard.

***Print report*:** A report of the results for each processed plate in the selection is printed, one separate page for each plate. The report is customizable and will include images of

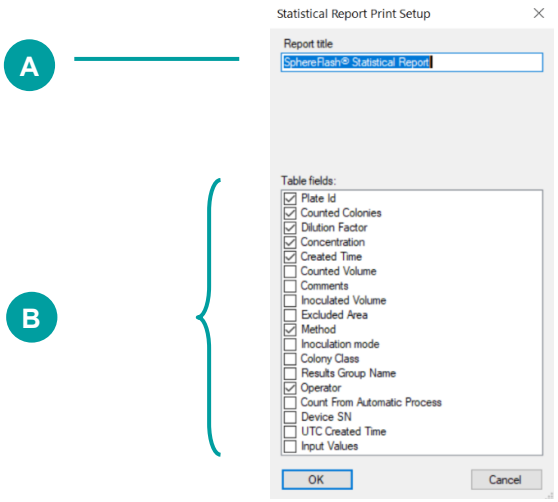
the result. In the footer, there is the name of the user who ordered the report, as well as the date and time when it was printed.

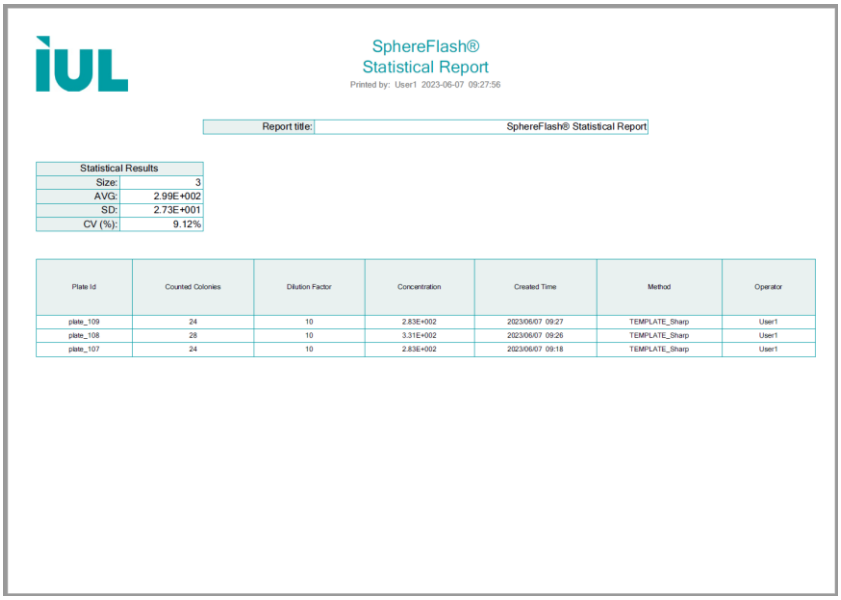
***Print reviewed report*:** A report of the results for each processed plate in the selection is printed, one separate page for each plate. The report is customizable and will include images of the result. In the footer, there is the name of the user who ordered the report, as well as the date and time when it was printed. This report also contains three boxes: one for the codification of the document, another for the operator's signature and date, and the other for the supervisor's signature and date.



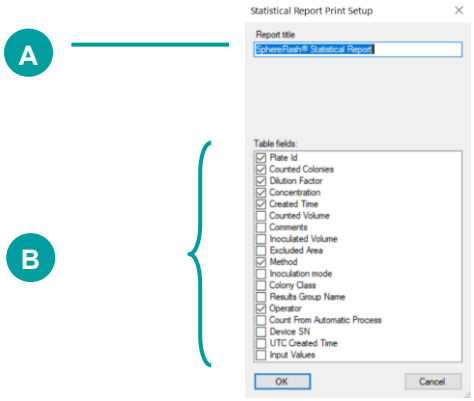
NOTE: If you select a virtual PDF printer, you can get a PDF file instead of a paper print. If the generated PDF file is automatically opened by a suitable external application, then you can apply a digital signature to the document*.

Print statistical report: A statistical report of the results of two or more processed plates is printed. The report is customizable, it can include the sample size, the average of CFUs of the selected plates, with their respective standard deviation and CV (%), or any of the other fields. The user can change the report's title (A) and can include additional information, selecting it in the menu (B). This information is the same that appears in the results data table of the software.

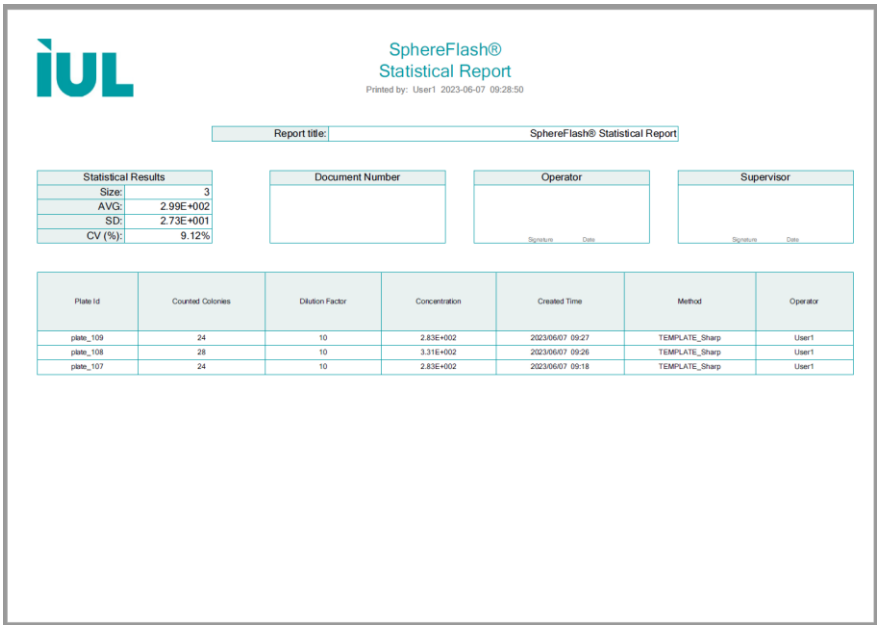




* *See Advanced Instructions for Use – SphereFlash Colonies Software, Doc. No 50007939.*



Print reviewed statistical report: A statistical report of the results of two or more processed plates is printed. The report is customizable, it can include the sample size, the average of CFUs of the selected plates, with their respective standard deviation and CV (%), or any of the other fields. The user can change the report's title (A) and can include additional information, by selecting it in the menu (B). This information is the same that appears in the results data table of the software. This report also contains three boxes: one for the codification of the document, another for the operator's signature and date, and the other for the supervisor's signature and date.



6.6. Other types of views

You can select and use other types of views, available from the *View Results* control panel*. There is a *CountResultsLite* view which is a summarized version of the default results view, showing only the most relevant fields of the results. You can also define customized views by selecting which fields to display and in which order.

There are also views for the Calibration operations and to list all the Methods.

Additionally, there is a feature to reduce the database size by purging the old results and transferring them to a separate historic file*.

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