TECHNICAL PAPER #04

RUN 4EVERYONE DETECTION KIT
# 2305-61 BEER SPOILERS TYPING
ON QUANTSTUDIO PLUS-MINUS SOFTWARE

Section 1

Set up an Experiment

- Switch on your laptop
- Log in as INSTR-USER, password INSTR-USER
- On the desktop, three folders are displayed together with the Design and Analysis program
- If your desktop is not assigned in that way, have a look on the second picture how to prepare shortcuts to these folders
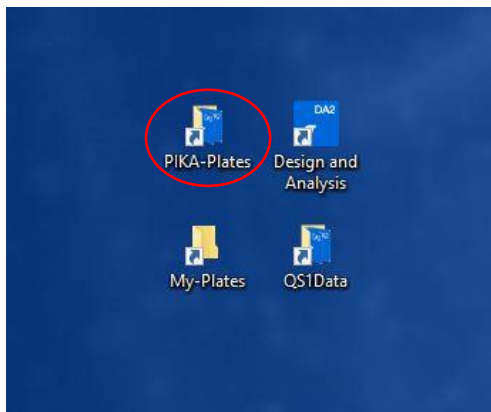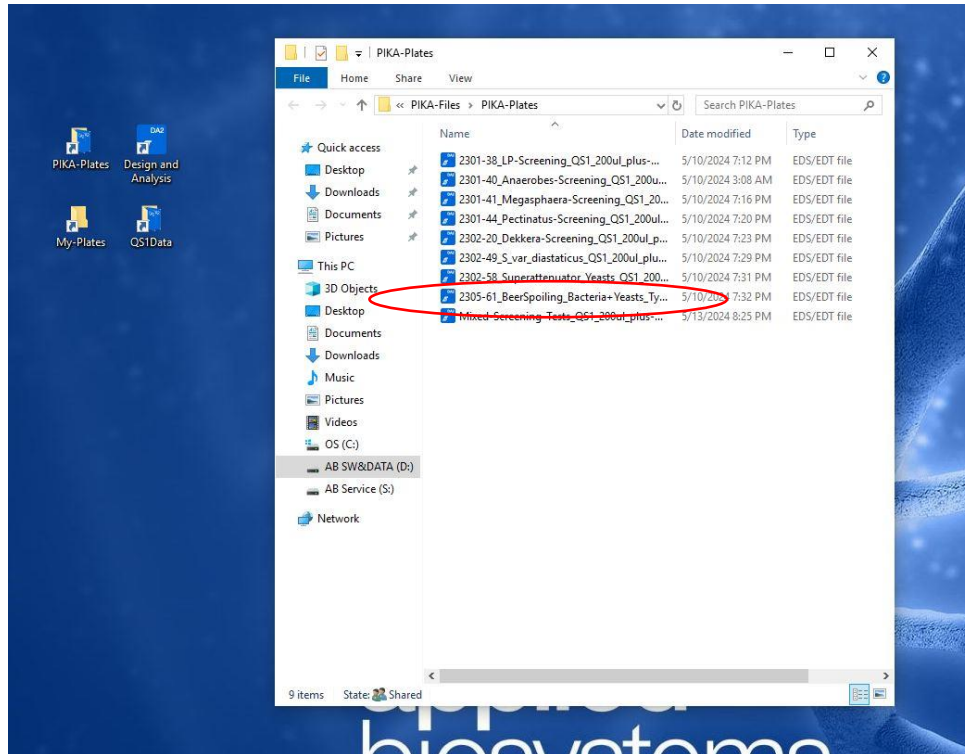

- Double click on the folder "PIKA- Plates"
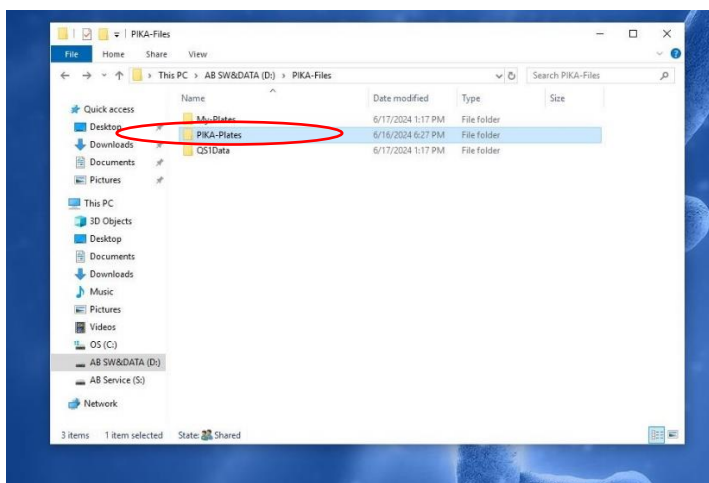
- If the shortcuts to these three folders are not available on the desktop, you can find the folders here: "This PC →AB SW&DATA (D:)→PIKA-Files"
- Create a desktop shortcut for the folder
    o Right-click on the folder and select "Send to" -> "Desktop (create shortcut)"

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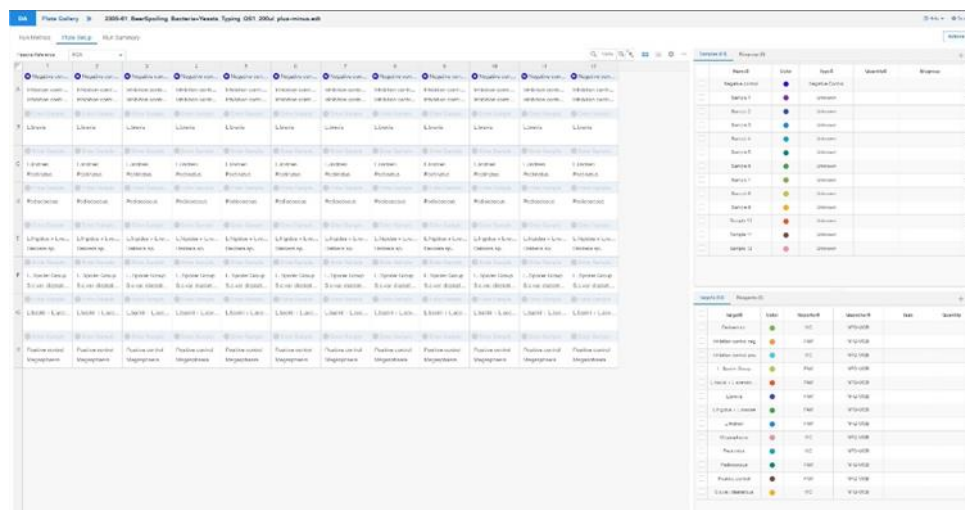RUN 4EVERYONE DETECTION KIT 2305-61 BEER SPOILERS TYPING ON QUANT STUDIO PLUS-MINUS SOFTWARE

- In folder PIKA-Plates, all 4everyone Detection Kits are displayed with their product numbers
- Double click on the kit you want to run, here for example "2305-61_ BeerSpoiling_Bacteria+Yeasts_ Typing"
- The DA2 software opens automatically in a new window

Section 2

Program Your Test
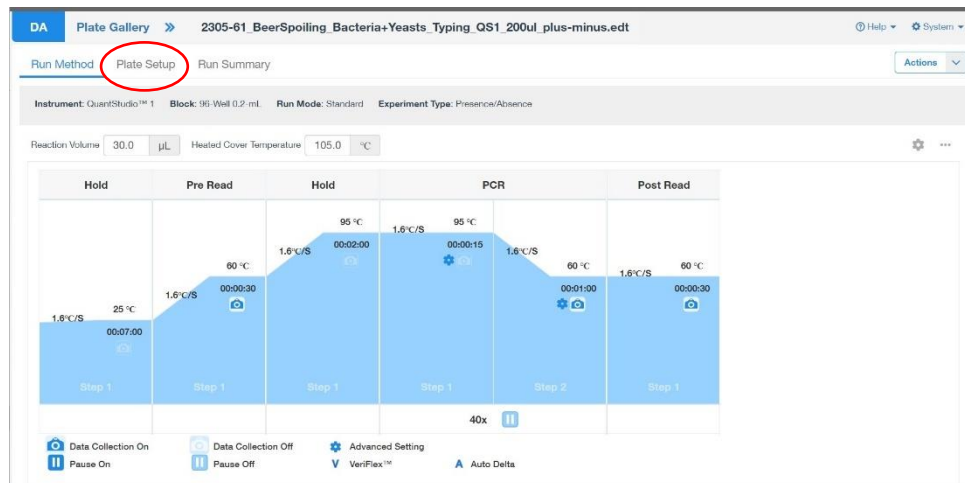

- Switch to Plate Setup by a click on the table

- If you don't run 12 samples / don't use a full 96 well plate
  - select the positions in the center of the thermoblock to position the sample strips
  - you should always insert one full empty breakable tubes strip into each of the edge rows 1 (positions A-H) and 12 (positions A-H) of the thermoblock
    - close empty breakable tube strips with a matching cap strip or cover foil, depending on the material you are going to use for your samples
    - NEVER mix strips with caps and strips covered with PCR foil together in one run
    - Doing so will allow better pressure distribution of the heated cover during the measuring process
- This table basically works same as an Excel table

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Run 4everyone Detection Kit 2305-61 Beer Spoilers Typing
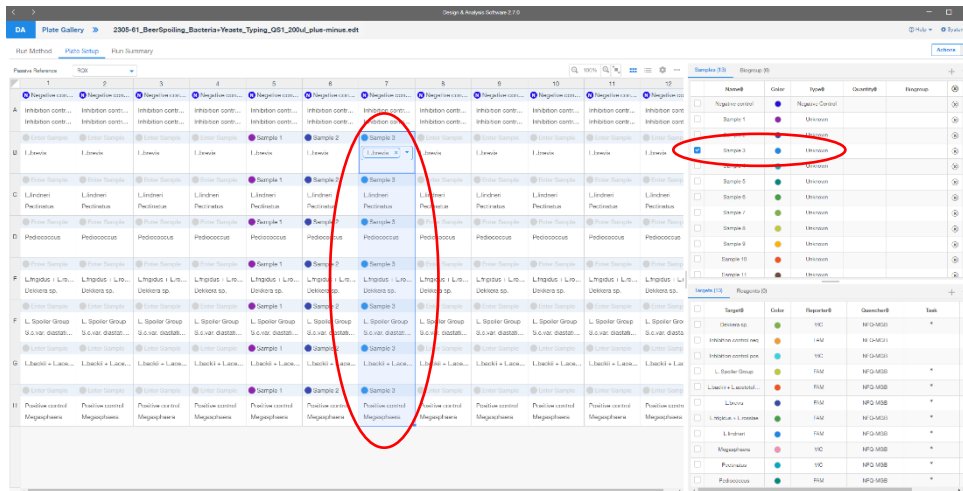on Quant Studio plus-minus Software
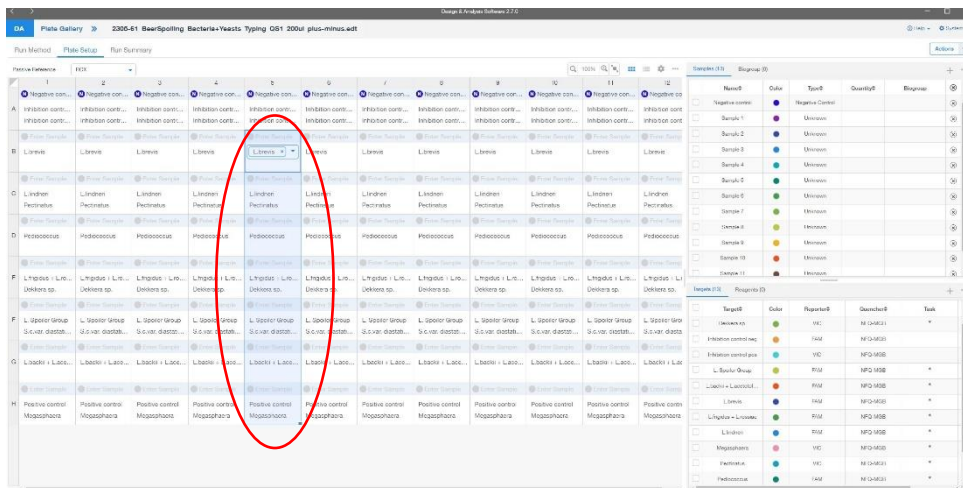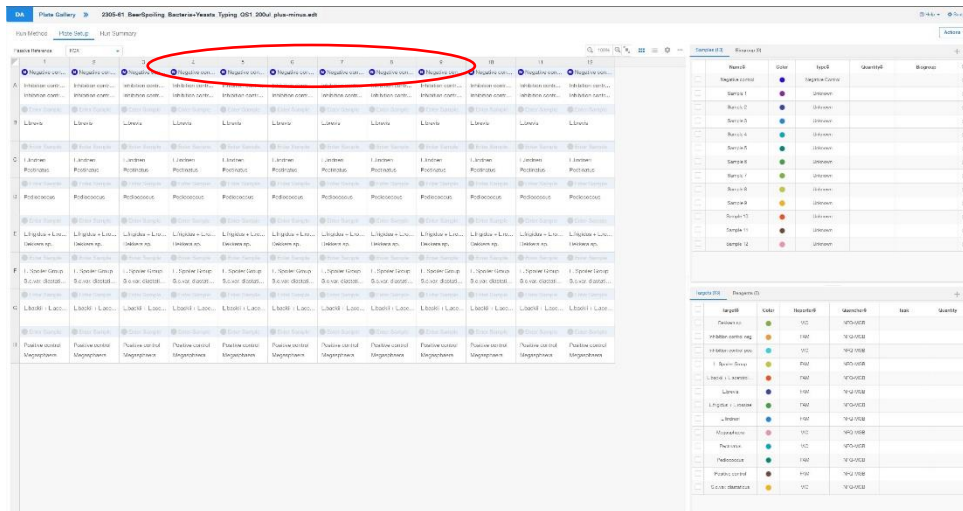
- Select all fields within one row below the negative control (B to H)
- To select multiple positions together, press the "shift" key and hold it while clicking on the different positions to select them all
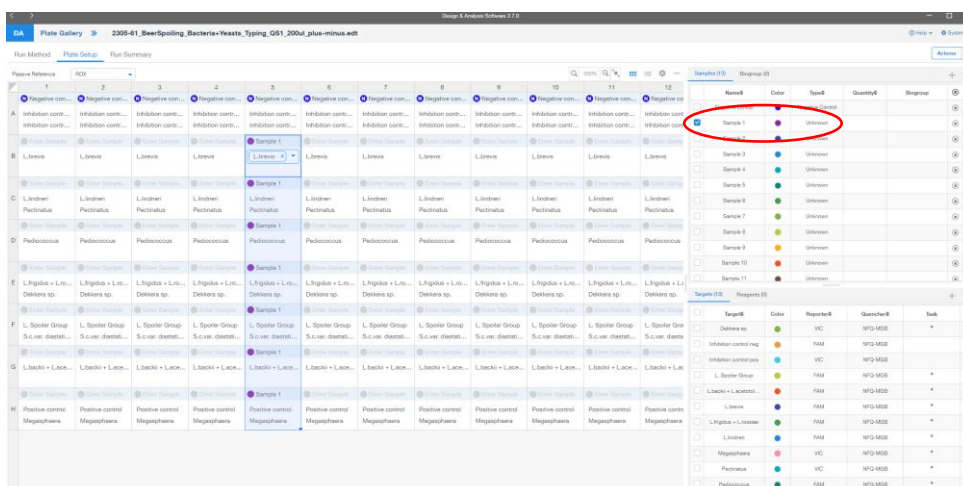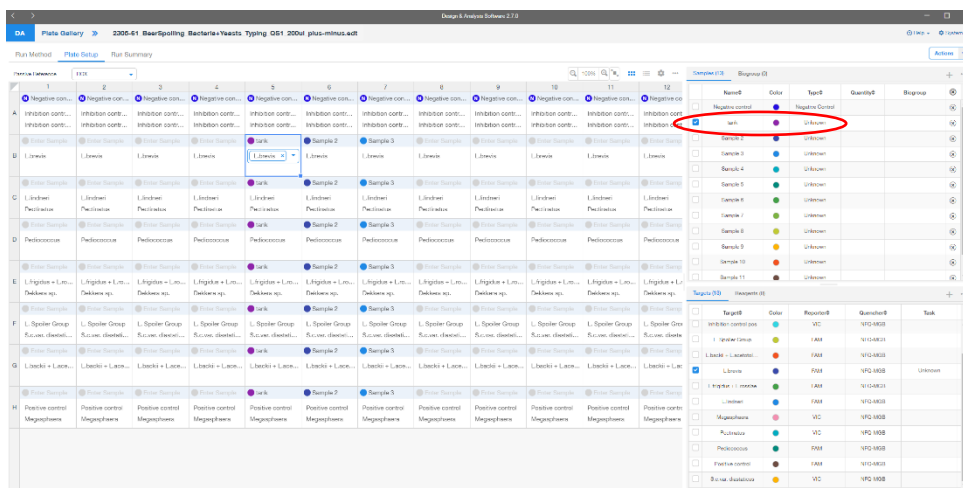

- Tick "Sample 1" for your first sample

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- Repeat this precedure column by column for the number of samples to be tested, use the subsequent sample numbers (here for example 3 samples)


- After all positions are activated, samples' names can be changed according to your real sample names
  - Click on "Sample 1" in the right table and enter the name of your sample (here for example "tank")
  - Repeat re-naming for all samples
  - New sample names will appear automatically in the positions as selected before for the different sample numbers

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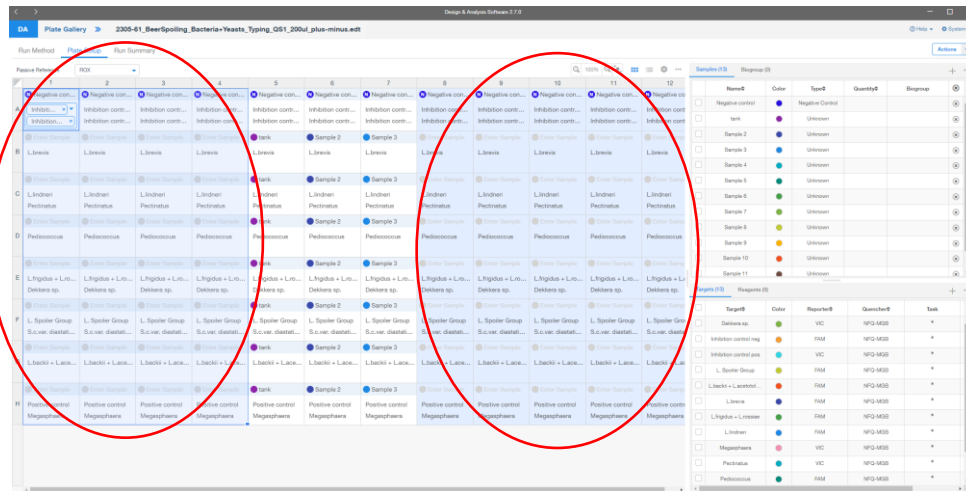
- IMPORTANT: You have to inactivate all positions which are not in use by your samples, including the empty edge tubes (if these are included)
  - Select all fields which are not in use
  - Take care to include all positions from A down to H as some rows might be out of vision in your actual view
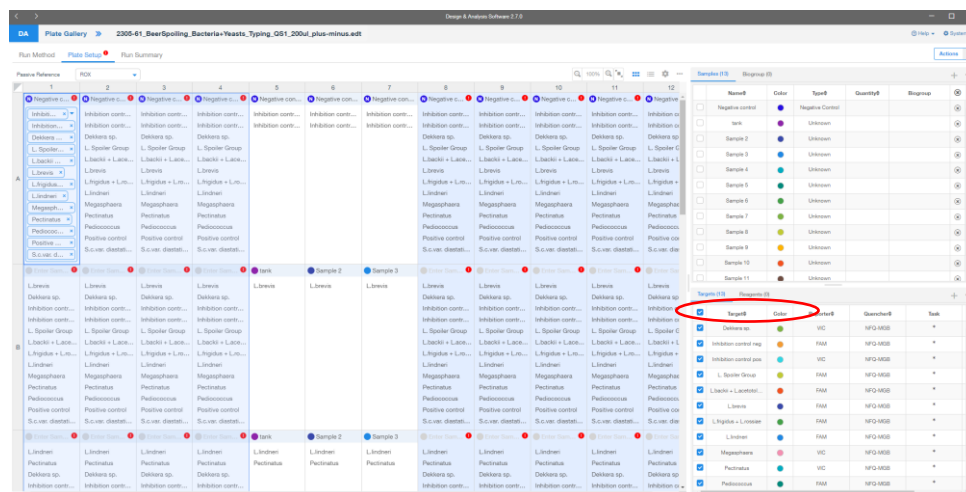
- Tick "Target" (top selection) before the next step, this will activate ALL targets

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- Then remove all checkmarks for all targets by clicking on the top checkmark "Target" again
- All fields which are not in use are empty now
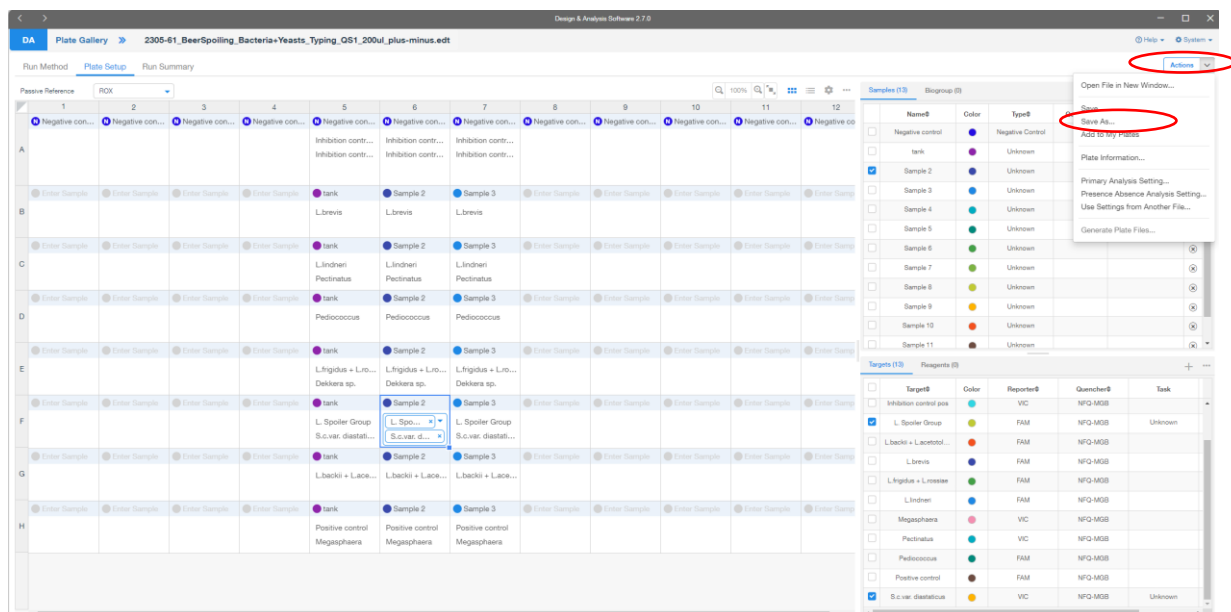
- After all samples positions are filled and the unused positions of the plate are empty, save your plate file
  - o click on "Actions"
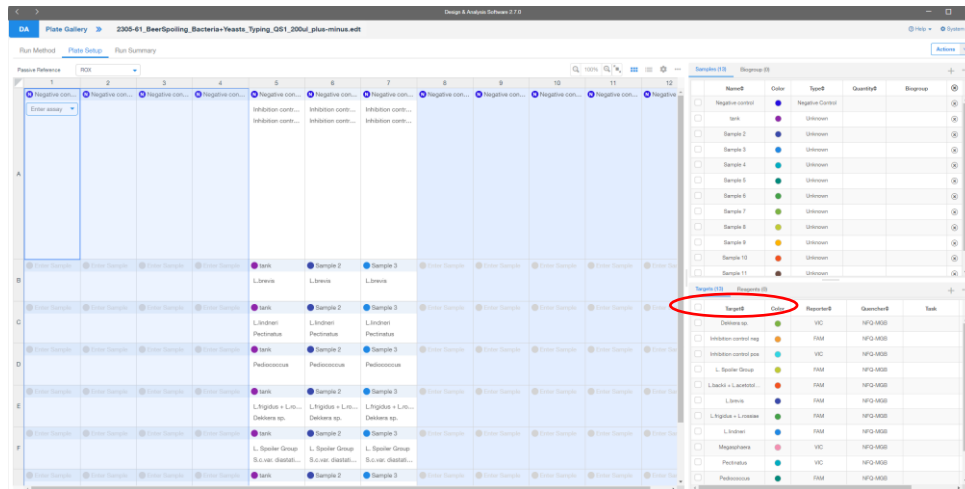 - o then click on "Save As…", and type a unique name for the run into the field "File Name"

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- We recommend to save the file with a name starting with the year, month, day, followed by the name of the test, as they will always be sorted accordingly
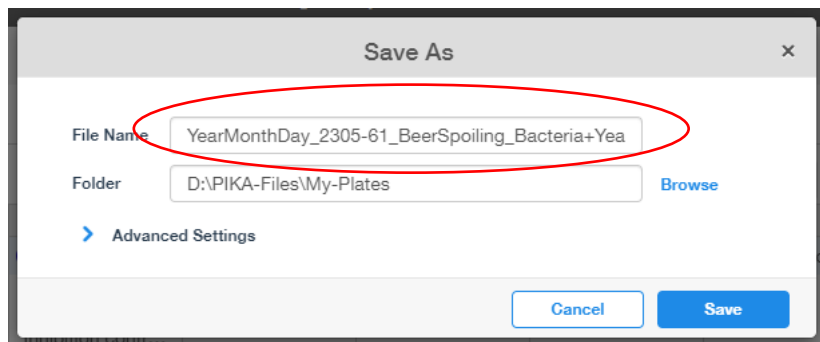- Make sure that the folder path which is displayed is correct as shown above above; if not, then browse to the folder "My-Plates"
- Click on "Save"

Please make sure now that your laptop is connected to your QuantStudio with the blue cable. The laptop must remain powered on when you start the run on QuantStudio, so the saved data file can be automatically transferred to the thermocycler.

All steps as described are available on video **PIKA-Video-04**.

Section 3

Run Your Samples on QuantStudio

- Switch on the QuantStudio instrument by pressing the power button in the back
- Log in as INSTR-USER, password is 2024
- Click "Load Experiment"
- Click "Network Drive"
    - 3 folders (My-Plates/, PIKA-Plates/, QS1Data/) are displayed
- Select the folder "My-Plates/"
    - Now you see all runs which you had saved so far
- Click on the file with the run you want to start, for example here "YearMonthDay_2301-Screening.edt"
- Now there are three tabs shown on the screen, click on "Plate"
    - The positioning of the preselected samples and controls is shown on display now
- Open the drawer of the instrument, be careful that you generally shouldn't leave the drawer open longer than necessary to avoid contamination of the thermocycler block by dust
- Place the PCR strips into the positions as shown on the display
    - Check that the PCR strips are inserted correctly and are tightly closed
    - If not using a full plate, you should always insert one full empty breakable tube strip (closed with a matching cap strip or PCR foil – same as you use for the samples) into each of the edge rows 1 (positions A-H) and 12 (positions A-H) of the thermoblock. This allows better pressure distribution of the heated lid during the measuring process
- **IMPORTANT NOTICE:**
    - NEVER use the cover foil for PCR which is mounted on the plates with oligomix when these are delivered in the kit. This foil is NOT temperature proof and will melt when used in the thermocycler!
    - Melting of the foil will cause irreversible damage to the thermocycler optics and ruin the instrument.
- Do not make any changes of names or positions on the Quant Studio screen, always use the software and data on the laptop to make changes
- Close the drawer
- Click on "Start Run"
    - Now the run starts automatically
    - After a short time, the display shows the time remaining until the run will finish
- Data collection and read out of results
    - The data from the QuantStudio will be automatically transmitted to the laptop as soon as the run has finished if a connection to the laptop is available
- After the run has finished, click on button "Done" and switch off the Quant Studio instrument.

Optional: It is not mandatory to have the laptop connected to the QuantStudio after the run has started as all data are always saved on the QuantStudio instrument.

If QuantStudio was not connected with the laptop when the run ends, you'll receive an alert message "Failed to transfer the file to Network drive" on the display of your QuantStudio and have to transfer the data file manually as follows:

- Click on "Transfer File" in the center of the circle
- A new window "Select Destination" opens
- Scroll down to Network and click on icon "Network"
- Click on "Destination" in the field next to "Network" (If you see a "/" then the connection between QuantStudio and the laptop is established, Status: Connected)
- In the new screen "Network" you see three folders (My-Plates/, PIKA-Plates/, QS1Data/), click on "QS1Data"
- The "/QS1Data/" folder opens now
- Click on"OK"
- This will bring you back again to the "Select Destination" window showing the path "/QS1Data/"
- Click on "Transfer" to complete the transfer of the data file to the laptop
- The transfer is completed once you see the message "Transfer Complete" on the screen
- Click on "Done"
- Now you can switch off the QuantStudio instrument
- Read out the results on the laptop