

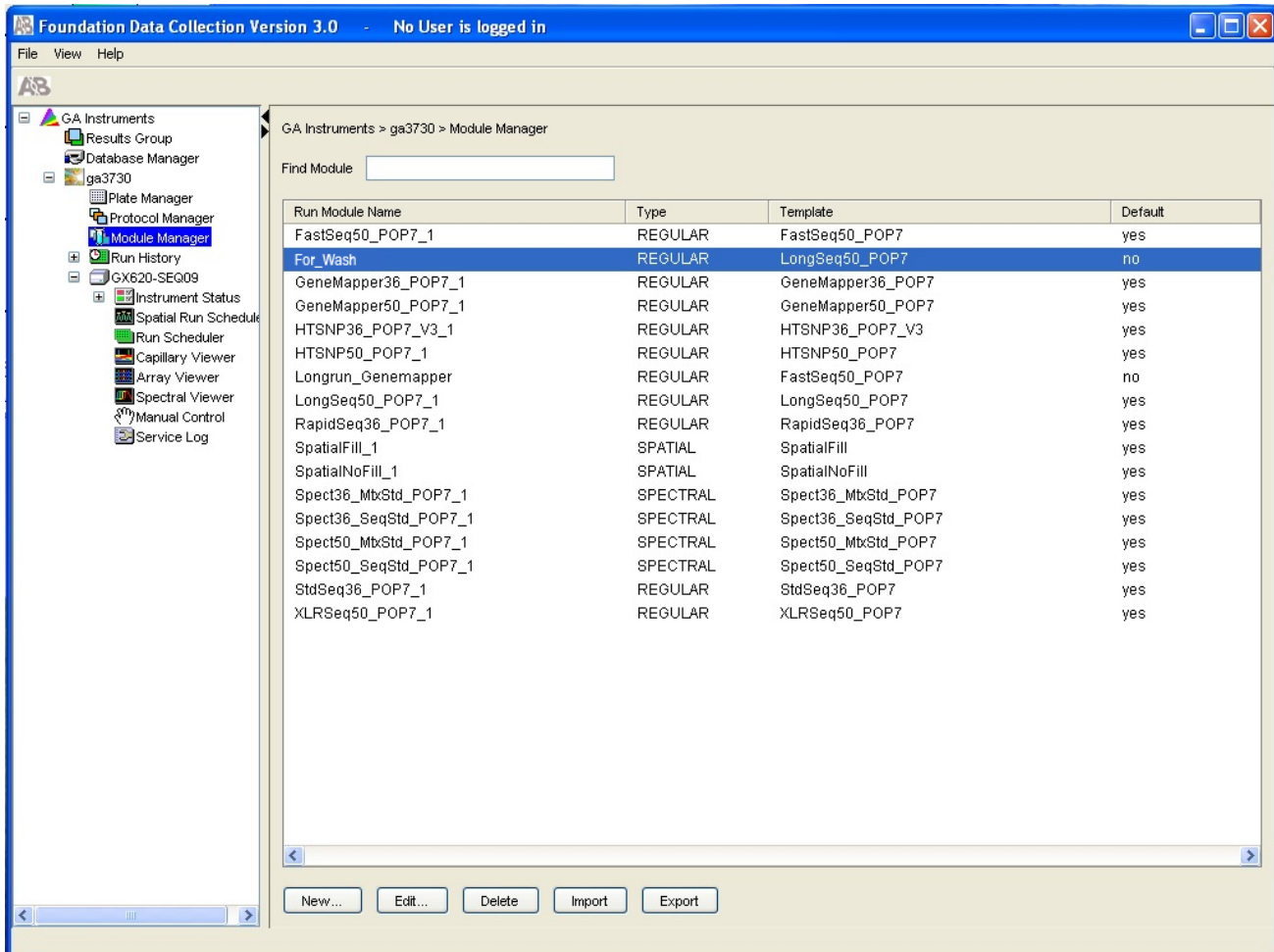


CARE Solution (ABI 3730XL) User Manual

320 Harbor Way
South San Francisco, CA 94080
Phone: 1 (650) 871-8771
1 (888) MCLAB-88
Fax: 1 (650) 871-8796
www.mclab.com

Care Solution Protocol:

1. Create a new module.
 - (a) Open Foundation Data Collection Version 3.0.
 - (b) Under "GA Instruments>ga3730," click on "Module Manager" in the left-hand column.
 - (c) On the bottom of the window, click "New" to set up a new module.



Run Module Editor ✖

Run Module Description

Name:

Type:

Template:

Description:

Run Module Settings

Name	Value	Range
Oven_Temperature	60	18...70 DegC
PreRun_Voltage	6.0	0...15 kV
PreRun_Time	30	1...1800 sec
Injection_Voltage	1.5	0...15 kV
Injection_Time	5	1...90 sec
First_ReadOut_Time	100	100...16000 ms
Second_ReadOut_Time	100	100...16000 ms
Run_Voltage	2.0	0...15 kV
Voltage_Number_Of_Steps	4	0...100 Steps
Voltage_Step_Interval	5	0...180 secs
Voltage_Tolerance	0.6	0...6.0 kV
Current_Stability	30.0	0...2000 uA
Ramp_Delay	20	1...1800 sec
Data_Delay	60	1...1800 sec
Run_Time	310	300...14000 sec

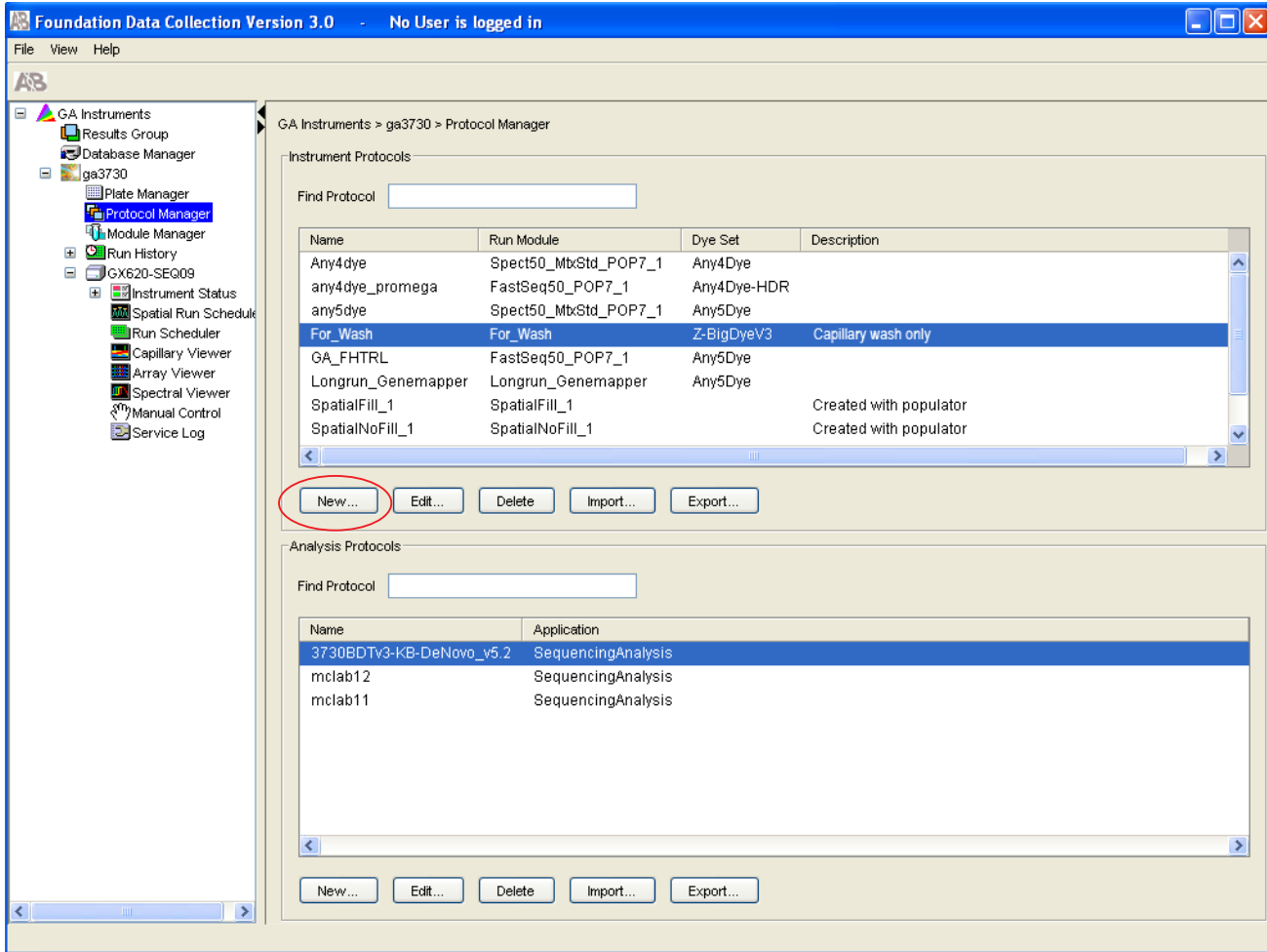
2. Setting Run Module Editor Values .

- (a) Name the module "For_Wash."
- (b) Under "Type," choose "REGULAR."
- (c) Under "Template," choose "LongSeq50_POP7."
- (d) Name Description "Capillary wash only."
- (e) Adjust settings to match "Value" column listed above.
- (f) Click "Ok."

3. Create a new run protocol.

(a) In the left hand column under "GA Instruments>ga3730," click on "Protocol Manager."

(b) Click "New."



Protocol Editor

Name: For_Wash

Description: Capillary wash only

Type: REGULAR

Run Module: For_Wash

Dye Set: Z-BigDyeV3

OK Cancel

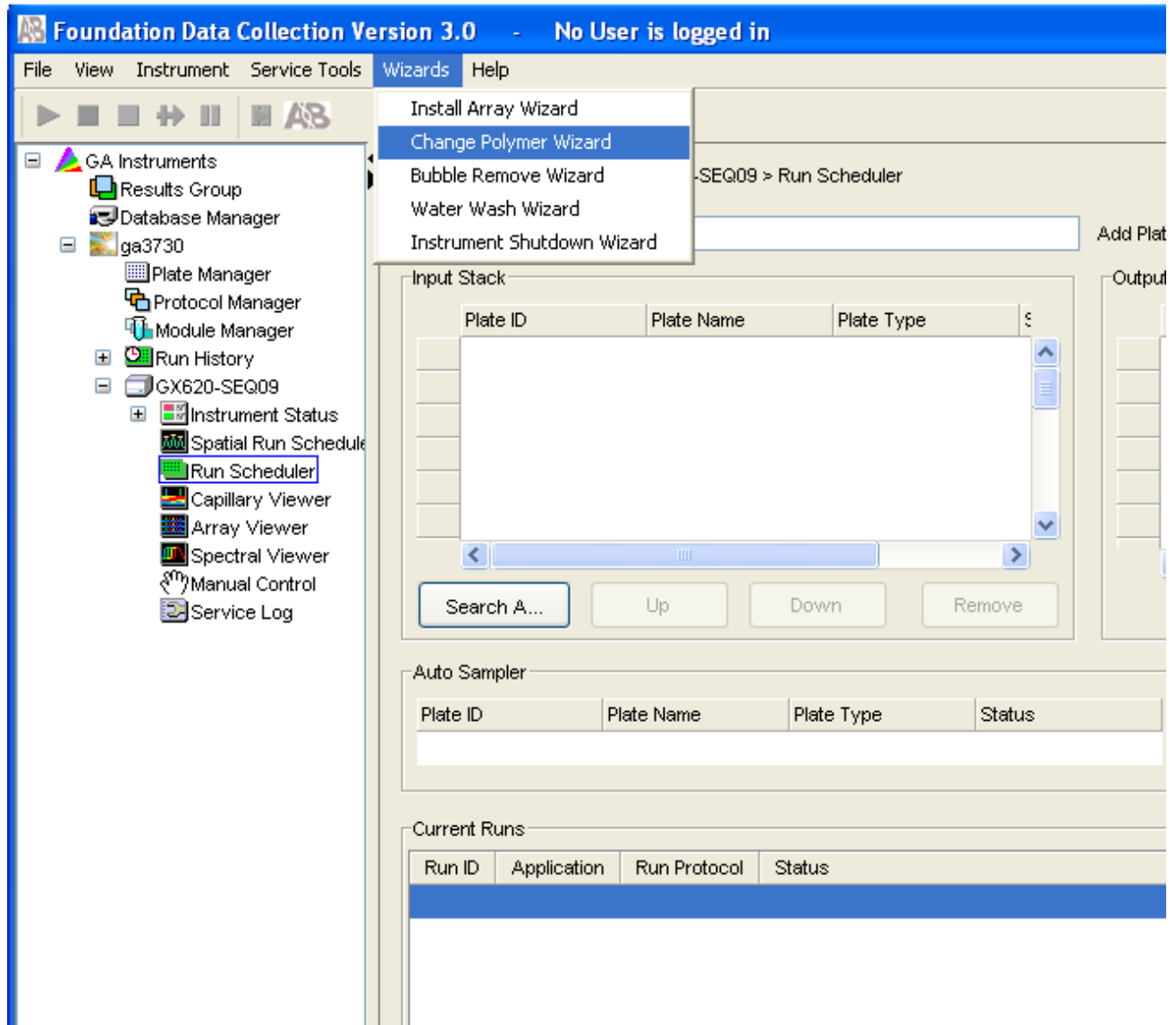
4. Setting "Protocol Editor" Values.

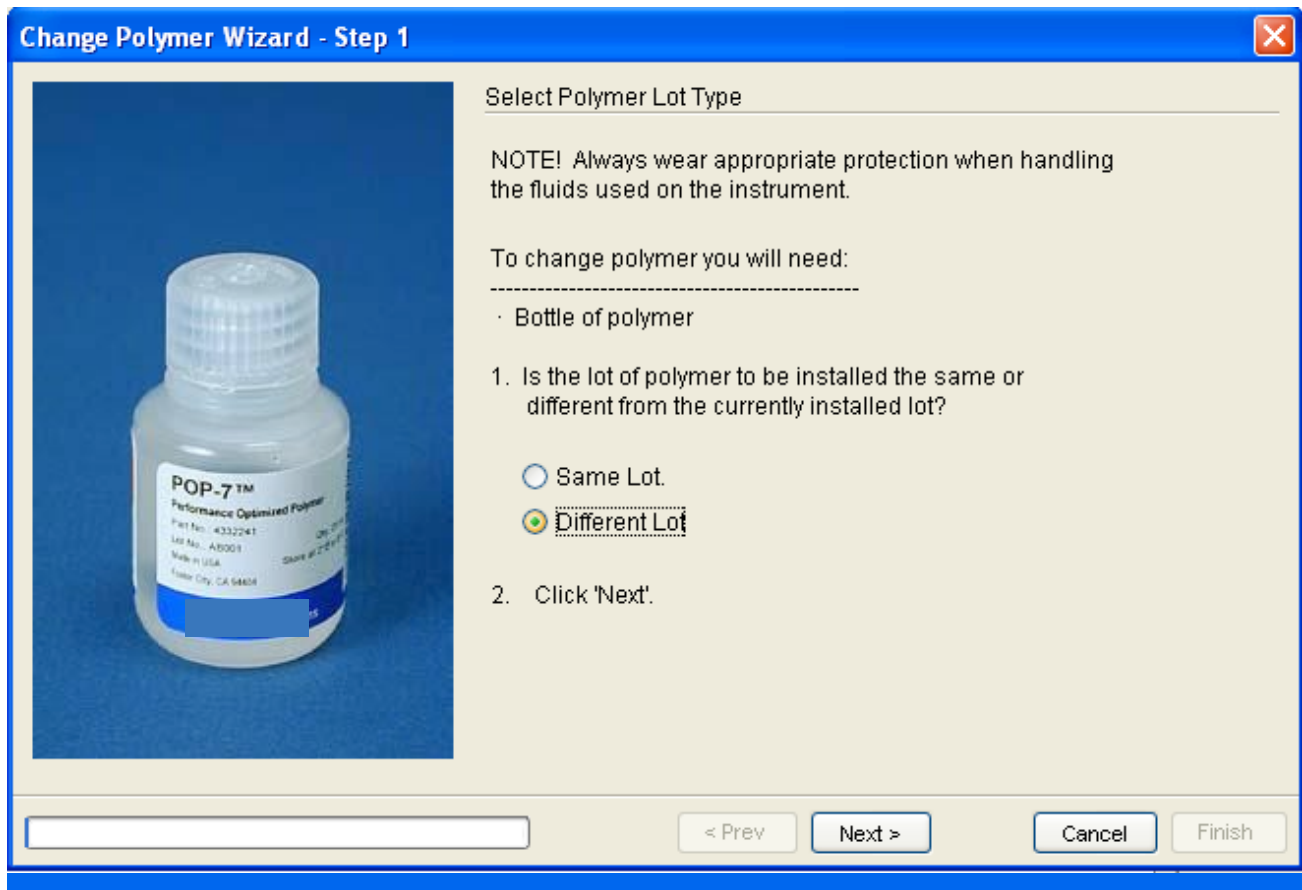
- (a) Name the Protocol "For_Wash."
- (b) Name Description "Capillary wash only."
- (c) Under "Type," choose "REGULAR."
- (d) Under "Run Module," choose "For_Wash."
- (e) Under "Dye Set," choose "Z-BigDyeV3."
- (f) Click "OK."

5. Perform "Change polymer Wizard", simply follow the normal protocol.

(a) From "Run Scheduler" screen, go "Change Polymer Wizard" and click it. Then we can go the procedure of "Change Polymer Wizard."

(b) Step 1, choose "Different Lot" then "Next."





(c) Step 2, enter Lot#"care" and the expiration date.

Change Polymer Wizard - Step 2

Enter Polymer Information

1. Enter the polymer lot information:


Polymer Type:

Polymer lot number:

Polymer expiration date (mm/dd/yy or ddMMMy):

2. Click Next.

< Prev Next > Cancel Finish



(d) Step 3, physically remove the polymer bottle and replace with the care solution bottle. Then click "Next."

Change Polymer Wizard - Step 3



Replace Polymer

Note! Always wear appropriate protection when handling fluids used on this instrument.

1. Open the main door and remove the polymer bottle and supply tube cap from the instrument.
2. With a damp, lint-free lab wipe, clean any liquid and dried polymer from the polymer supply tube and cap. Dry these parts with another lab wipe.
3. Install a bottle of fresh polymer on the instrument. [Replace the shipping cap on the polymer bottle with the 1-hole supply tube cap. Slip the polymer supply tube through the hole in the cap and mount the bottle in the holder.]
4. Click Next.

< Prev


Next >

Cancel

Finish

(e) Step 4, Click "Prime" to fill the fluid system with fresh care solution. Then click "Next."

Change Polymer Wizard - Step 4



Prime the Pump with Fresh Polymer

1. Click 'Prime' to fill the fluid system with fresh polymer.

Please wait approximately 1 minute for the Prime procedure to complete.

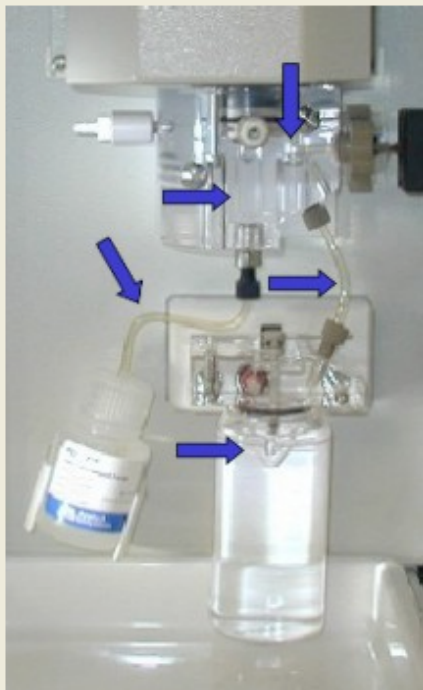
2. Inspect the pump chamber, the channels of both polymer blocks and all tubing for bubbles.

NOTE! Removal of bubbles from all areas of the fluid system is important for problem-free electrophoresis.

3. Click 'Next'.

(f) Step 5 and Step 6, remove bubbles.

Change Polymer Wizard - Step 5



Remove Bubbles

1. Are bubbles visible in the pump chamber, the channels of either polymer block or any tubing?

NOTE! Very small bubbles less than about 0.2 mm in diameter may be ignored. Bubbles in restricted spaces of the array port in the pump block may be difficult to remove with this procedure. Any bubbles in this region will be removed later.

Yes. Bubbles are present.

Remove Bubbles

No. All bubbles are gone.

2. Click 'Remove Bubbles'.

Please wait approximately 1 minute for the Remove Bubbles procedure to complete.

3. If bubbles are still present, click the 'Remove Bubbles' button again. When all bubbles are gone, click 'No. All bubbles are gone'.

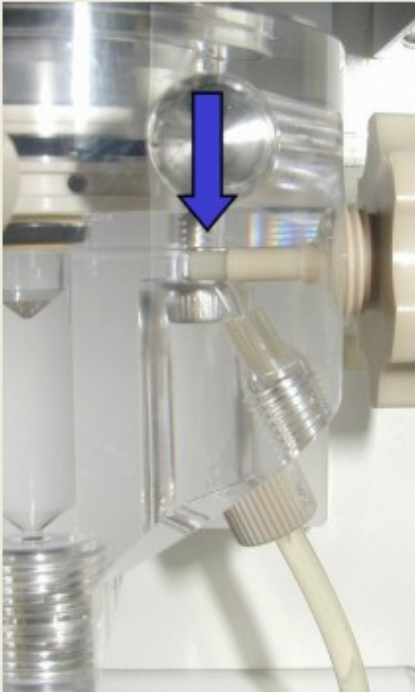
< Prev

Next >

Cancel

Finish

Change Polymer Wizard - Step 6



Remove Array Port Bubbles

1. Are bubbles visible in the array port around the array tip in the pump block (carefully inspect the space above the array tip)?

NOTE! Bubbles less than about 0.2 mm in diameter may be ignored.
 Yes. Bubbles are present. No. All bubbles are gone.
2. Loosen the array knob one turn counter-clockwise. Click 'Flush Array Port'.
3. Inspect the array port area for bubbles. If bubbles are present, make sure the array knob is loosened and repeat the flush procedure by clicking 'Flush Array Port'.
4. When the bubbles are gone, tighten the array knob by turning it clockwise until it seats firmly in the pump block. Click 'No. All bubbles are gone'.

< Prev Next > Cancel Finish

(g) Step 7, Fill array with care solution, Then click "Finish."

Change Polymer Wizard - Step 7



Fill Array With Polymer

1. If you would like to fill the array with polymer, close the main door and wait for the green status light to illuminate. Then click 'Fill Array'. If you choose not to fill the array at this time, proceed to step 2.

Fill Array

Please wait approximately 2 minutes for the Fill Array procedure to complete.

2. Remove the buffer jar, rinse with purified water, then fill it to the indicator line with 1X run buffer.
3. Install the buffer jar on the lower polymer block, then close the main door.
4. Click 'Finish'.

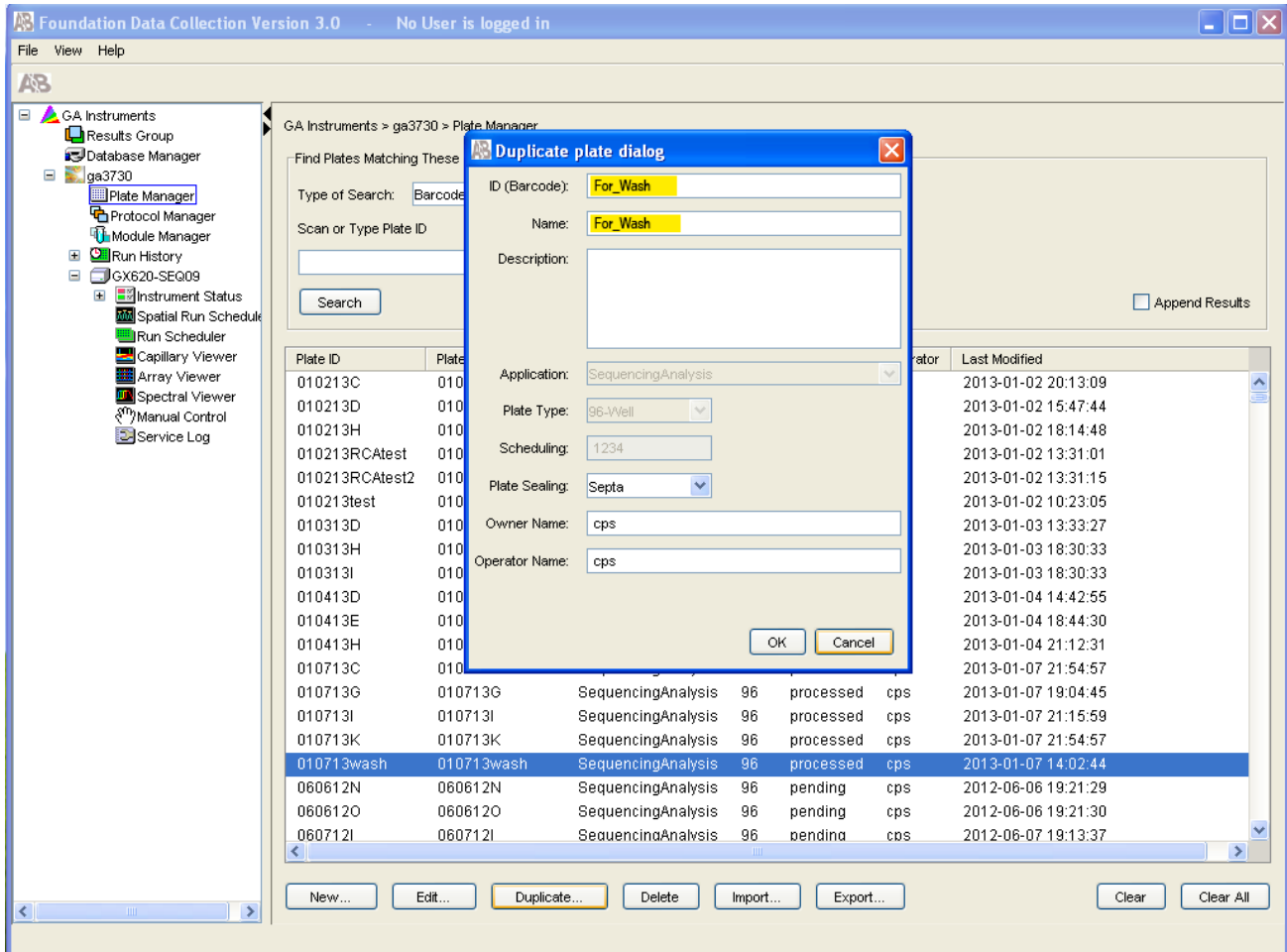
< Prev

Next >

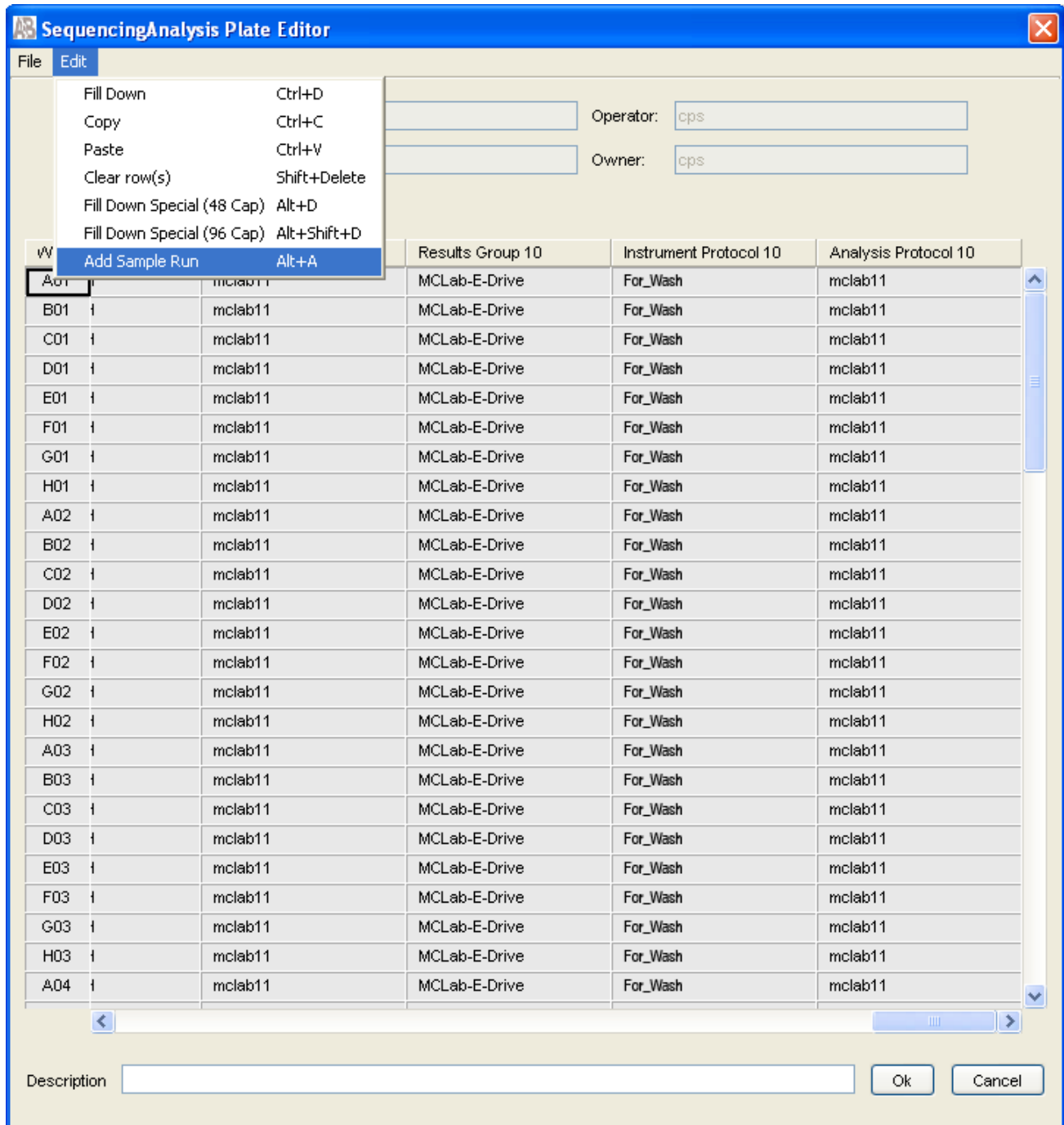
Cancel

Finish

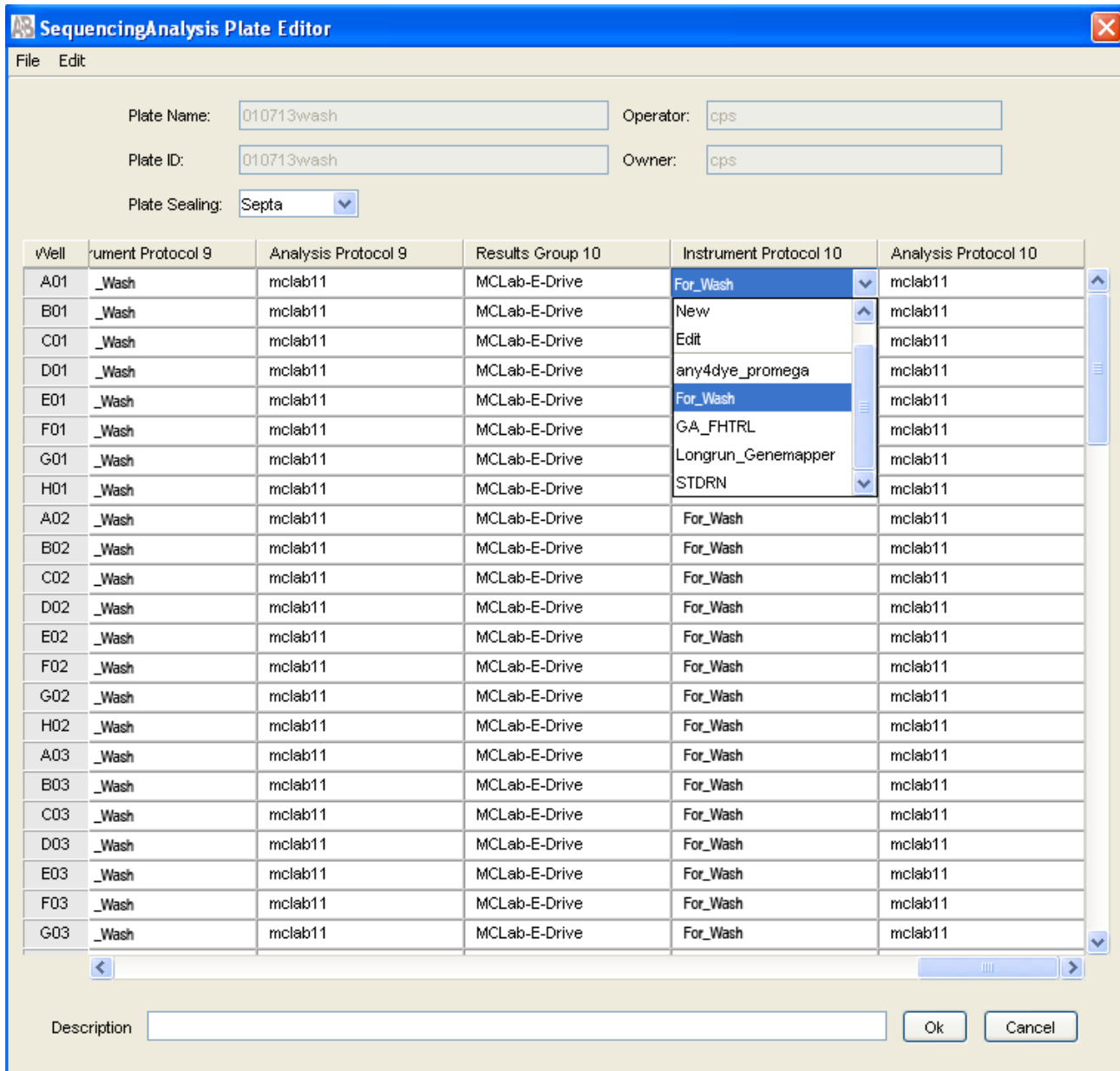
6. Create a new sample sheet just for the wash.
 - (a) In the left hand column, click on "plate manager."
 - (b) Choose any template, and click on "Duplicate." Change the name to "For_Wash," then click on "OK."



(c) The "SequencingAnalysis Plate Editor" will appear as the following screenshot.



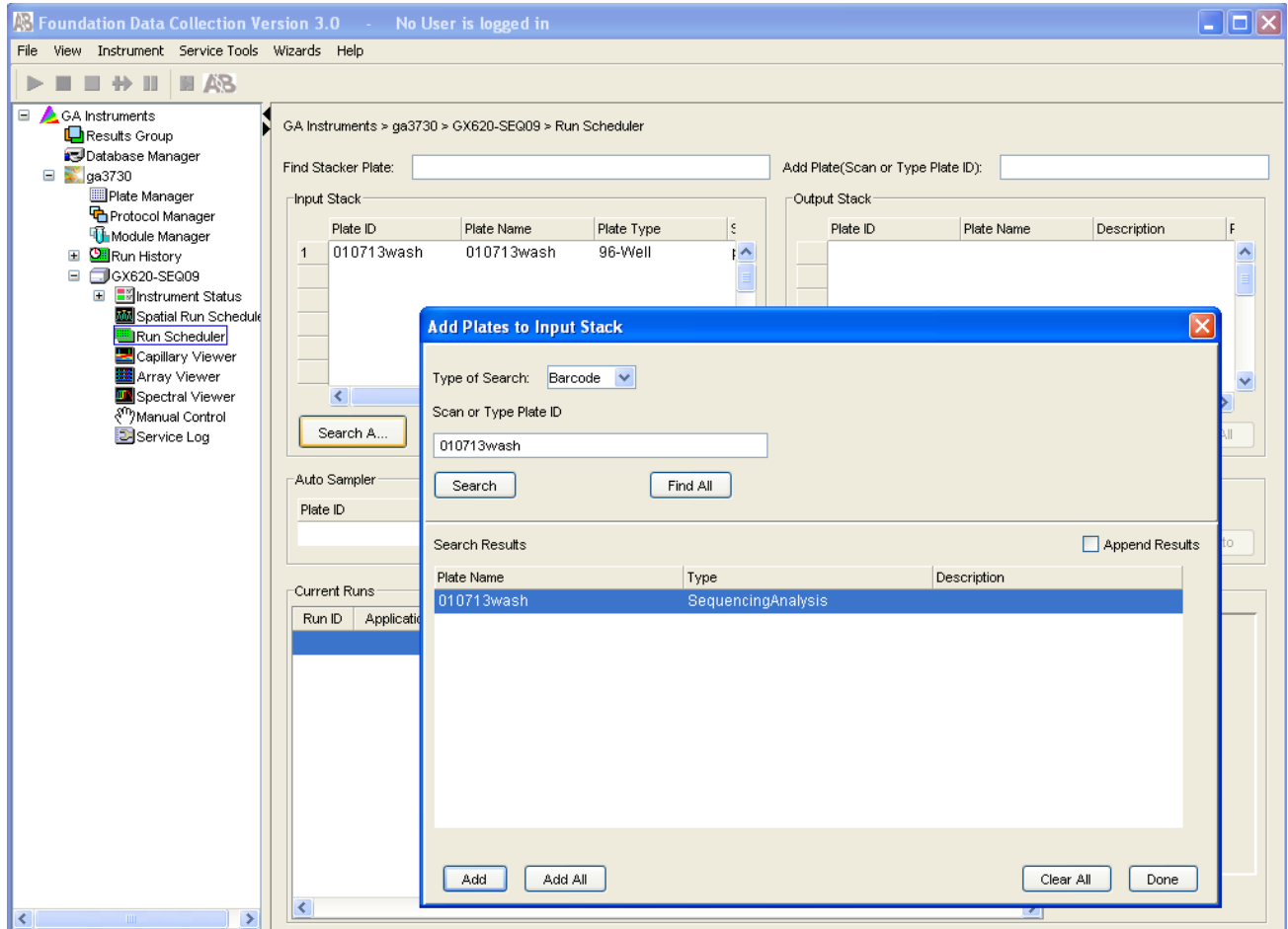
(d) Click "Edit" then "Add Sample Run," and set up a total of 10 cleaning runs. Choose "For_Wash" as the run protocol in the "instrument protocol" column. Then click "OK."



7. Schedule a run for the "Wash program."

(a) Click on "Run Scheduler" in the left-hand column and then click on "Search A..." button. "Add Plates to Input Stack" will appear.

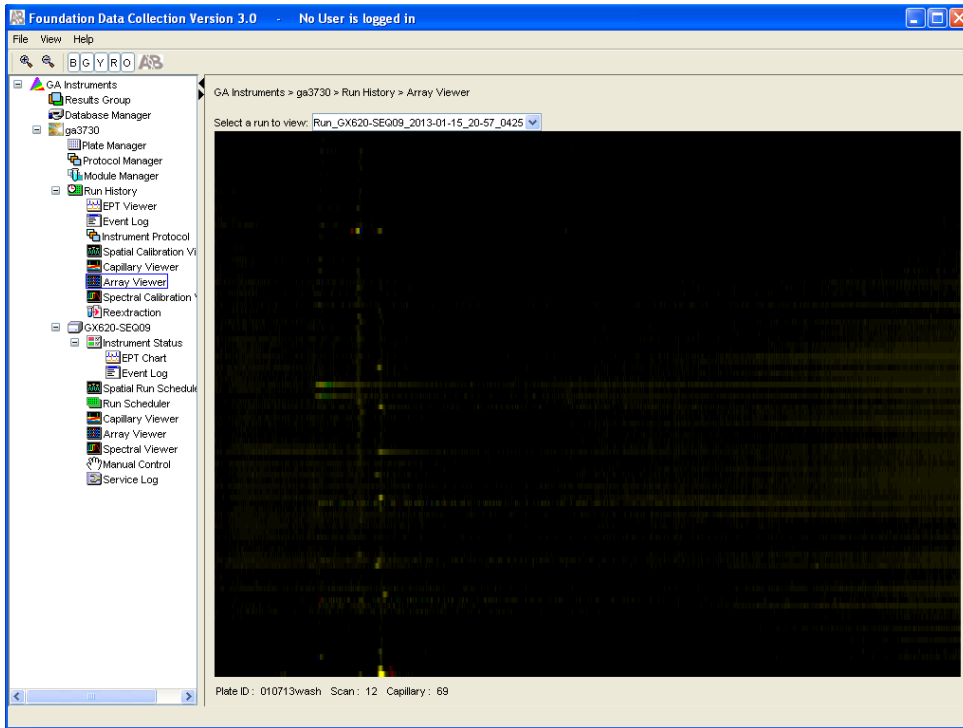
(b) In the "Add Plates to Input Stack" window, enter your plate name in the search area, then click "Search." The plate name will appear on the bottom of this window. Click "Add" then "Done."



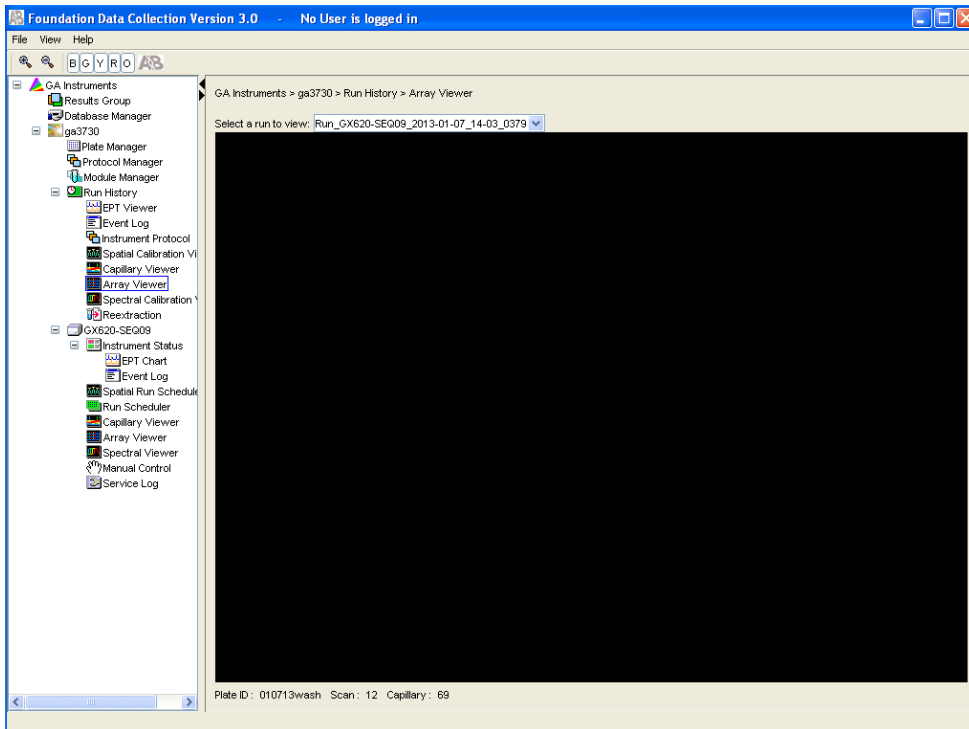
(c) The plate name will appear on the "Input Stack" list. The Care Solution Run can now start.

8. After the machine finish the operation, change the care solution bottle with polymer bottle according to the software protocol, and it's ready to run the sample.

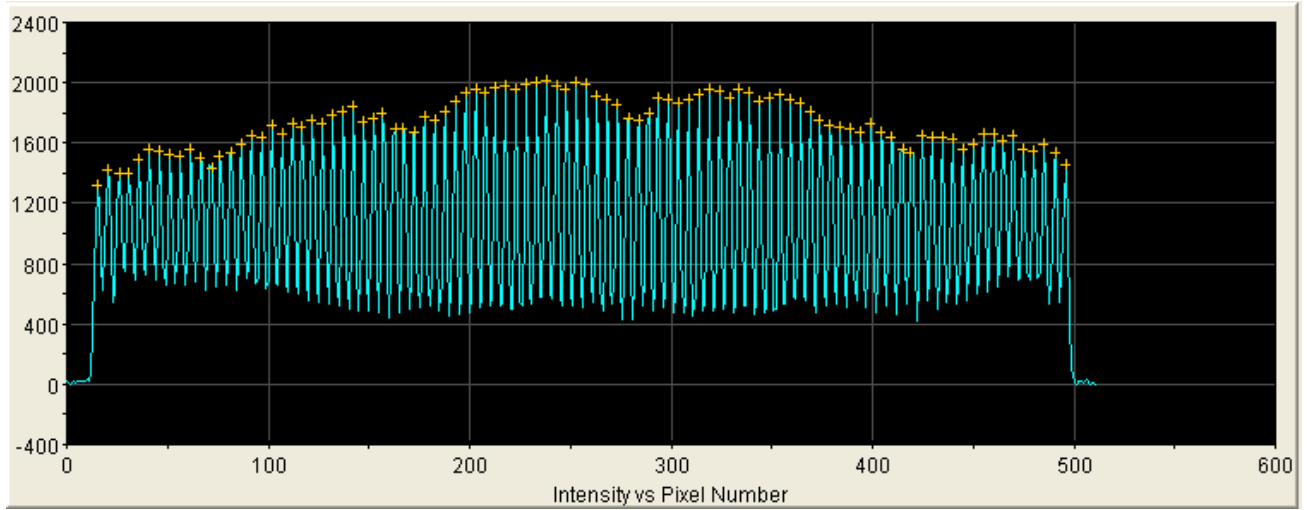
Results:



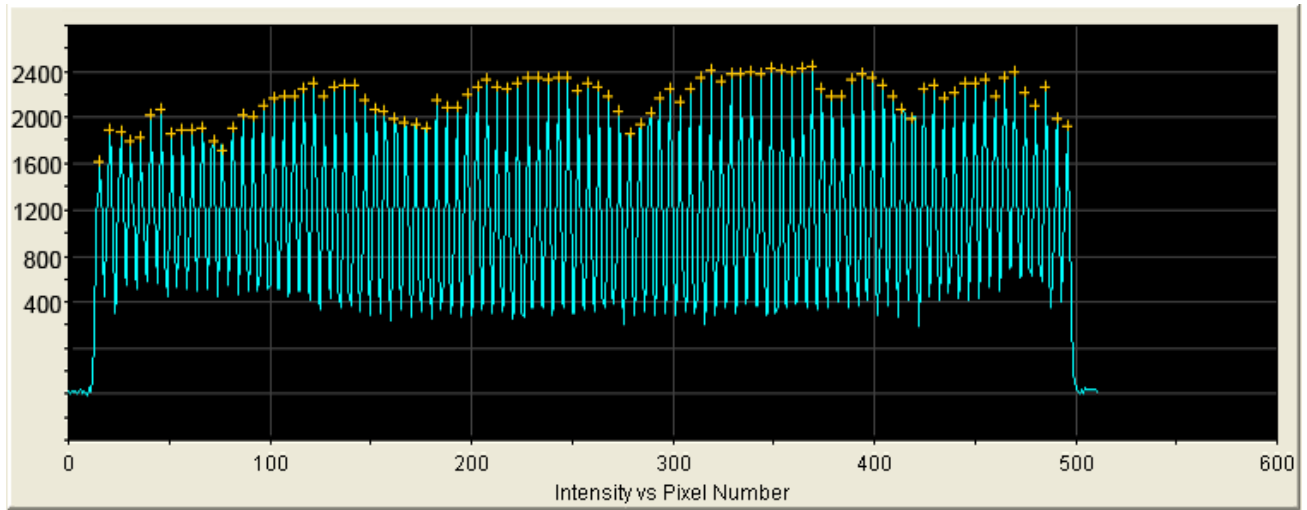
Before



After



Before



After