

Easy Steps

For Getti

Starte

FCS EX[DIFess Cytometry



rning Cytometry Data Into Results

With **FCS EXPIRESS**, you can eliminate the busywork of creating replicate plots and pages for every sample.

FOLLOW THE STEPS in this QUICK GUIDE

...to set up your LAYOUT up as a TEMPLATE, through which your samples will be ITERATED. With a single CLICK, the BATCH PROCESS will export the results from the rest of your samples to PPT[™]/PDF/Excel[™].

- 2 -

2 💼 💄 💼



Open a new layout Load your data files into the layout Gate your data **View summary statistics Batch Process your results Extra Tips** Help Resources

p. 4

p. 5

p. 8

p. 12

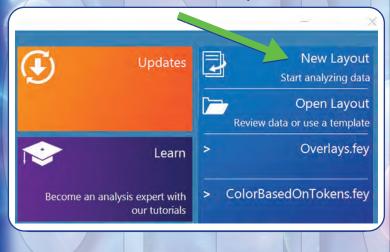
p. 14

p. 21

0.2

OPEN A NEW LAYOUT

From "Startup Screen" click "New Layout



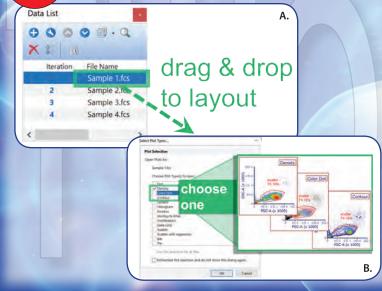
LOAD DATA FILES INTO LAYOUT

Define the list of data files to work with, from your experiment.

Home	Insert	Design	Gating	Batch	Form	iat Te	xt	Data	Тоо	s (Quality
		0		2		Increm	ant V	alua 1			
2011	Batch Export	View Header	Keywor Anonym		Panels	increm	ent v	aiue		Data	
/Load		D	ata Info			Orga	nize (Data S	ets		C
	Data List		- 1			Dat	a List				
	00	001	1.Q.			0	0	0	0	. (2
	X÷	2				×	3	0			
d	Iterat	ion File	Name	ro			Itera	ition		lame ple 1.	cs
	-						2		Sam	ple 2.	fcs
or	US	e th	e 🖸				3			ple 3.	
	40						4		Sam	ple 4.	cs

LOAD DATA FILES INTO LAYOUT

Insert a 2D-plot of one of your data files.

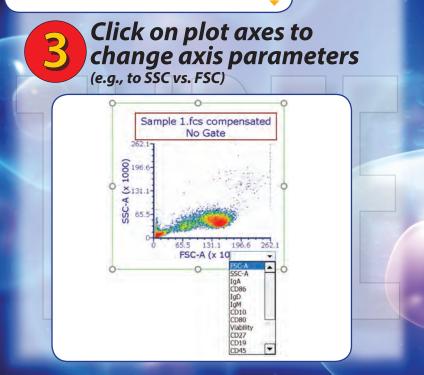


- 6 -

 A.) Drag and drop the first filename in the DATA LIST to an empty spot on your layout, and B.) choose DENSITY, COLOR DOT or CONTOUR plot type. We'll use screenshots of each throughout this guide.

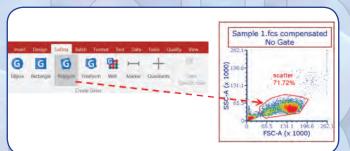
Changed your mind about what plot type you want? SEE TIP (#1)

Need to add overlays for positive or isotype controls, etc.? SEE TIP (#2)

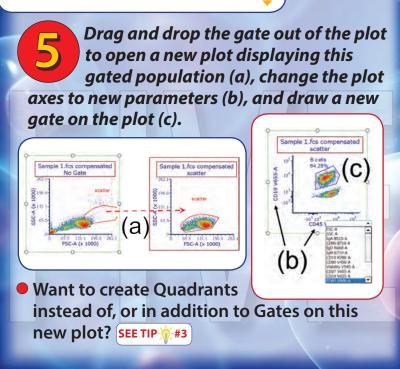


- 8 -





- Choose POLYGON from the Gating Tab, and click where you want each vertex to appear.
- To close the gate, click on the original vertex or press SPACE on your keyboard.
- Name the gate, e.g., "SCATTER".



View an interactive legend of your gates.

Home	Inser	t Desig	n Ga	ting
A≣	-			
Text Box	Gate View	Picture	Data Grid	
	General	-		S
	Insert G	ate View		
9	🖂 🗾 s	catter	-0	
0		B cells	0	

 Insert tab> GATE VIEW. Click on an empty spot on your layout.

From here, you may re-define your gating hierarchy, delete or rename gates, etc.

• You can also drag and drop gates from here to any plot to re-gate that plot.

VIEW SUMMARY STATISTICS

View default summary statistics from this plot.

Ctrl+F.

O O Sample 1.fcs compe scatter	Add text box
V 10 ⁵ B cells 64.28% 64.28% 64.28%	Create gate Show gates Activate gate Break Gate Link Show Quadrants Convert Quads To Gates
8 -103	Statistics
-10 ³ 10 ⁴ CD45 V800-	Recreate Gate Text Boxes Recreate Quad Text Boxes Compensation Copy 2D Plot Data Next

0#

1 1

9 10 ³	1	Convert Qu	ads To Gates					
61 10 ³	Jan	Statistics.				Gate	Statistics	-
0 -10		Recreate Ga	te Text Boxe	s		(a) Quad	drand Statistic	5
	-10 10 10		ad Text Box	es		-40		
	-10 10 10 1C CD45 V800-A	Compensati				-40		
_	0	Copy 2D Pla	ot Data			10		
		Next				t+Right		
Overlay	Filename		Gate	# of Events	X Geometric Mean	Y Geometric Mean	% of gated cells	all
Overlay	Filename Sample 1.fcs comp	pensated	Gate		Geometric	Geometric	gated	all cells
Iverlay			None	Events	Geometric Mean	Geometric Mean	gated cells	cells 71.72

- 12 -

VIEW SUMMARY STATISTICS

These statistics reflect the population that the plot is gated on.

You may right-click on the STATISTICS WINDOW to add or remove any desired statistic.

 You can also drag and drop any of these statistics to insert them onto a plot or elsewhere on your layout **GREAT JOB!** You've now learned the basics of:

Loading your Data Files into the Layout
 Creating Gates and
 Viewing Summary Statistics

Complete the next few steps to quickly summarize the, results from all your data files in a *Batch Process* to Microsoft Office[™], PowerPoint[™] & Excel[™].

Preview Your Data Files (Optional) You can preview your entire list of data files without having to create replicate sets of plots for each, simply by using the Next/Prev buttons.

> Just make sure you go back to Iteration #1 before going on to Step 10 below.

		0	0		3	8			
crement Value	Data List	Providus	Next	Select	Previous	Next	Select	Iteration:	1
	crement Value 1	Data	Data Previous List	crement Value 1 Data Previous Next List	Data Previous Next Select List	Crement Value Data Provious Next Select Provious List	crement Value 1 Data Previous Next Select Previous Next List	Crement Value Data Previous Next Select Previous Next Select	List Data Previous Next Select Previous Next Select Iteration:

Data tab> Change Data on All Objects> Next/Previous

Set Up a Batch Process to PowerPoint

Batch Batch tab> Batch Gating Actions> Save to 1 1 Review Batch Panels Options Run Rerun **PowerPoint Batch Processing Batch Actions Batch Process Actions** Add Action - Print Output file options Save Lavout Append to the file being (ambined with (specified above Save To Save to a new file: Powerpoint C:\Users\Desktop\Experiment 1 summary.pptx - c Save To PDF Save As Picture Ask for confirmation before overwriting an existing file Publish Layout Create output folder if it does not exist OK. Cancel Under Output File

Options> Save to a New File, click on the yellow folder icon to set the filepath and filename for your PPT export> Click OK.

Actions> Export tors Run Review Review Control of the review Batch Processing Batch Process Actions Add Action Save Layout Save Layout Save Layout Save Layout Save Robits Compared to the file free free free free free free free fr	Actions Export to Exact Processing teth Actions add Action Sever Is Prote Sever Is Protect Sever	to Ex	
Batch Processing Satch Actions Add Action Print 1. Save to Poll Save To Poll Save To Poll Save To Poll Save To Poll Cultury Desktop Experiment 1 summary alse Cultury Desktop Experiment 1 summary alse		\$ 5 5 2	
Batch Processing Batch Actions Add Action Privit Save Layout Cutent file options Cutent file options Cutent file options Cutent file options Cutent Save Save Save Save Save Save Save Save	Batch Processong tch Actions tdd Actions tdd Actions batch Process Actions Codput file option Save 1a pola Save 1a pola Save 1a pola Actions the file toolse particular access Codput file option Actions tool file option Codput file opt	ptions Run Rerun Review	Actions
Add Action Print Sove to Pool Sove to Poempont Sove to Pol Sove to Poempont Sove to Pol Sove to Anno file Cilibert Desktop Experiment 1 summary alss Cilibert Cilibert Desktop Experiment 1 summary alss Cilibert	Add Action Prind Save To Print Save To PDI Save To PDI Save To PDI Save To PDI Cutput file option	Batch Processing	to Excel
Find Sive Layout Sove to Poorpoint Sove to POOrpoint Sove to POO Culture Culture Culture Culture Culture Culture Contract	Print Save Ta Pol	Batch Actions	
L) Save Layout Cuter Cuters DesktopExperiment Save Layout Cuters	I Save Layout Save To Peomerpoint Save To PO Save As Picture Publish Layout Ud Folder Add Report Add Report CUSers/Desktop/Experiment 1 summing as welding the Cuses output false in a dose output false in a dose output did Report CUSers/Desktop/Experiment 1 summing as welding the Cuses output false in a dose output did Report Cuses output	Add Action	Process Actions (COIUMN IVIOAE)
Distance To Powerpoint Output file equitions Output file equitions Automatic for the followy constrained with transmitted accreat Oil Save As Placture Oil Save As Placture Oil Users' Desktop/Experiment 1 summary.stas Oil Clubers' Oil Clubers' Desktop/Experiment 1 summary.stas Oil Clubers' Oil Clube	Silve to P Powerpaint Save As Findure Publish Layout Cluster Detains Save As Findure Publish Layout Cluster Detaint for the reing Lowertent with repetition answer Save As Findure Publish Layout Cluster Detaintient with the reing Lowertent 1 summary state Cluster Detaintient with repetition Cluster output totaler it it does not eard Cluster and repetition		
Accessed to PDI Accessed to the file being constituted with spacefield access C State & Sense to a new file Publish Lugoout C Users/Desktop/Experiment 1 summary.state C Acd Folder Acd Folder Acd Folder	Save So POP Solver Sol	Save To	Output file options
C:Users/Desktop/Experiment 1 semmary alse C:Users/Desktop/Experiment 1 semmary alse C:Users/Desktop/Experiment 1 semmary alse	Andre as a source of the sourc		Append to the file being contribute with (specified acree)
Add Folder		Save As Picture	Save to a new file:
Ask for confirmation before overwriting an westing file	Polder At the contraction before overwriting as webring the Countraction and the device overwriting the device overwriting the Countraction and the device overwriting the device o	ar Publish Layout	C:/Users/Desktop/Experiment 1 summary.xtsx
Folder	dd Recort • • Provide Caluar Saving	Add Folder	Ask for confirmation before overwriting an existing file
Create output tolder if it does not exist	Export To Excel	Ca Folder	Create output folder if it does not exist
Add Report		Add Report	Open file after saving

 Under Output File Options> Save to a New File, click on the yellow folder icon to set the filepath and filename for your XLSX export> Click OK.

Choose statistics and filenames or other metadata to export to Excel.



H Save Layout In Save To Powerpoint In Save To PDP In Save An Picture In RAMS Layout And Folder Balch Process Actions

Export To Powerpoint

2 - Distic: Filename for plot #1, gite watter

C = Statistic X Median for plot #1. gate scatter

B = Statistic % of gated for plot #1, gate scatter

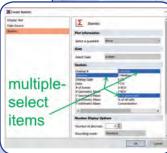
Column Mode)

Add Report

(Column Mode) Export To Excel (Cell Model Scatter 71.72% 65.5 65.5 71.11.15% 75.7 65.5 71.72% 71.72% 71.72% 75.5 71.72% 75.5 71.72%

drag & drop onto

"Excel (Column Mode)"



- Drag & drop a PLOT or a GATE to the "Excel (Column Mode)" Batch Action
- Multiple-select items from the resulting dialog window to export to Excel and click OK

NOTE: Be sure to select FILENAME so that this descriptive information appears in the first column of your Excel Spreadsheet

Run the Batch Process



"Batch tab > Batch Processing > Run"

All data files in your experiment (viewable within the DATA LIST as shown in STEP 2 above) have now been PROCESSED and SUMMARIZED in visual and statistical form. Open your PowerPoint and Excel files, respectively, to see! Need to adjust gates individually for each sample?

SEE TIP-0-#4

FAQ/TIPS

#1: I WANT COLOR DOT PLOTS, BUT I ALREADY INSERTED CONTOUR / DENSITY / HISTOGRAM PLOTS (OR VICE-VERSA). CAN I CHANGE MY MIND WITHOUT STARTING OVER? You can change the type of existing plots on your layout by selecting the plot(s) as you would object(s) in PowerPoint, and using the Format tab> Change Plot Type button.

#2: HOW DO I CREATE OVERLAYS? You can create overlays by dragging and dropping files from the Data List onto existing Color Dot or Histogram plots. Be sure to anchor control or reference overlays (e.g., positive and isotype controls) so that they don't change during the batch, by right-clicking on the plot with multiple overlays> Format> Overlays> select the control overlay(s)> uncheck Change data during Next/Prev/Batch.

#3: HOW CAN I CREATE QUADRANTS AND MARKERS? The Gating tab has buttons for Quads and Markers. You can also right-click on a plot to create Gates, Quads (on 2D-plots), and Markers (on 1D-plots) from the pop-up menu.

#4: MY GATED POPULATIONS SHIFT AROUND FROM SAMPLE TO SAMPLE. CAN THE BATCH PROCESS HANDLE THIS, OR MUST ALL GATE SIZES AND POSITIONS BE THE SAME ACROSS SAMPLES? You can adjust gate position and size individually for each data file via Batch tab> Options> check Unconditionally pause between iterations prior to Running or Re-running the Batch. Alternatively, you can use Gating tab> Data-Specific Gates, which are also useful for when you have plots from multiple samples side by side (simultaneously) in the layout.

HELP RESOURCES

NEED HELP?

Contact us by email or phone. Our response is guaranteed within 24 business hours, usually much sooner (within a few hours).

Support@DeNovoSoftware.com

or

+1 (213) 814-1240

- 22 -

HELP RESOURCES (Also accessible from Startup Screen)

SEE OUR VIDEOS



Quick video clips (2-3 min each)

https://www.denovosoftware.com/videos/ #shortoverview



Full-length recorded webinars

https://www.denovosoftware.com/videos/

ONLINE STEP-BY-STEP WRITTEN TUTORIALS



and SEARCHABLE MANUAL



https://www.denovosoftware.com/full-access/ manual-tutorials



© De Novo Software 400 N. Brand Blvd. Suite 850 Glendale, CA 91203

*Microsoft Office is a registered trademark of Microsoft Corporation. Mac is a registered trademark of Apple Inc. Acrobat & the Acrobat Logo are registered trademarks of Adobe Systems, Inc.