

BD FACSDiva Software Quick Reference Guide for BD FACSCanto Systems with the Loader Option

This guide contains instructions for using BD FACSDiva™ software version 8.0 and later with BD FACSCanto™ and BD FACSCanto™ II systems equipped with the BD FACS™ Loader (Loader) option.

Workflow Overview

The following figure shows the daily flow cytometry workflow when using BD FACSDiva software.



Before starting your daily workflow, ensure that your lab's software administrator has performed all the necessary tasks to set up the software for your use. This guide shows a workflow that uses application settings.



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live healthy lives

Starting Up the System

- 1 Turn on the cytometer main power.
- 2 Start up the computer, start BD FACSDiva software, and log in.
- 3 Check fluid levels in the Cytometer window.
- 4 Select Cytometer > Fluidics Startup if automatic cleaning is disabled.
- 5 Check the flow cell for air bubbles.
- 6 Check that laser warmup has finished, indicated by a ready status.



Checking Cytometer Performance

- 1 Select Cytometer > CST.


Verify the Cytometer Configuration and bead Lot ID.

Clear the checkbox.

If needed, select a different configuration or bead lot ID.

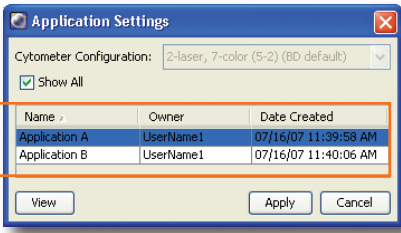
- 2 Place a tube of BD FACSDiva™ CS&T research beads in position 1 on a carousel and run the beads.
- 3 View the Cytometer Performance Report.
- 4 Close the Cytometer Setup and Tracking window.

Setting Up the Experiment

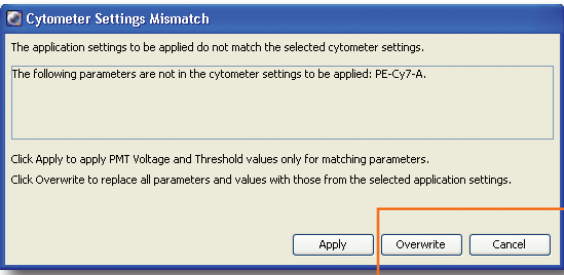
- 1 Select Edit > User Preferences and verify that selected preferences are appropriate.
- 2 Create an experiment in the Browser.
- 3 Right-click  Cytometer Settings in the Browser. Select Application Settings > Apply.

Select an application setting.

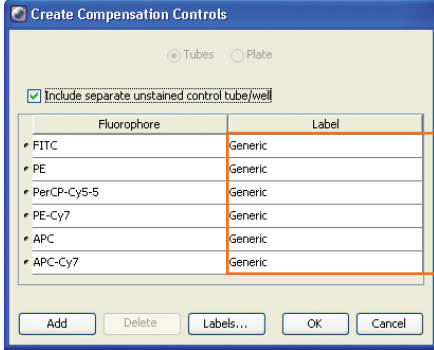
Click Overwrite if necessary.



Name	Owner	Date Created
Application A	UserName1	07/16/07 11:39:58 AM
Application B	UserName1	07/16/07 11:40:06 AM



- 4 Select Experiment > Compensation Setup > Create Compensation Controls.



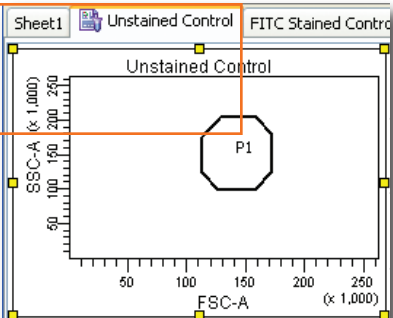
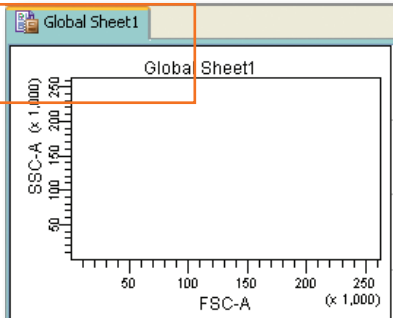
Fluorophore	Label
• FITC	Generic
• PE	Generic
• PerCP-Cy5-5	Generic
• PE-Cy7	Generic
• APC	Generic
• APC-Cy7	Generic

Create label-specific controls as needed.

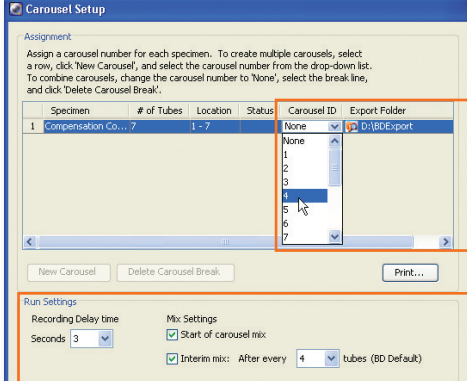
- 5 Copy and paste plots from the Unstained Control normal worksheet to a global worksheet.

Select Edit > Select All and then Edit > Copy to copy plots from the normal worksheet.

Select Edit > Paste to paste the plots to a global worksheet.

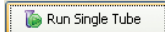
- 6 Specify carousel setup settings.

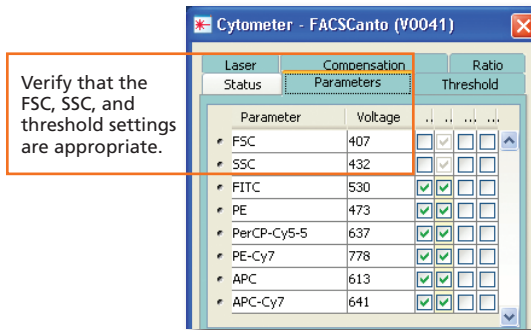
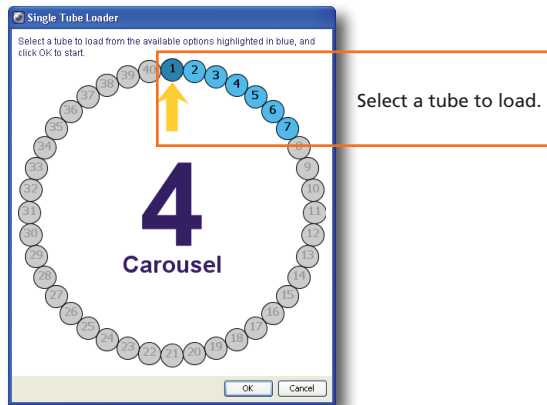



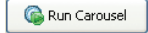
Specimen	# of Tubes	Location	Status	Carousel ID	Export Folder
1 Compensation Co...	7	1 - 7		None	D:\BDE\export

Specify a carousel ID.

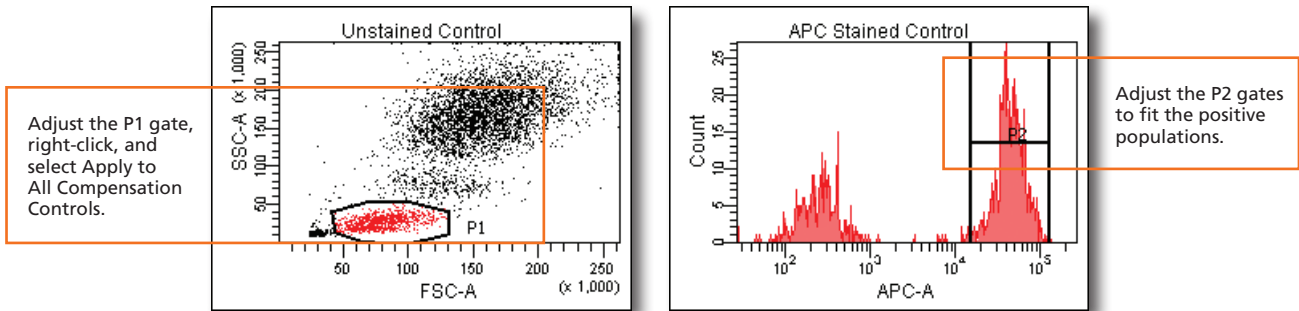
Specify run settings.

- Verify that the current tube pointer is set to the Unstained Control tube and that a global worksheet is displayed.
- Place compensation control tubes in the carousel in the same order as listed in the Browser and install the carousel on the Loader.
- Verify that the cytometer is configured for automatic loading and click  .

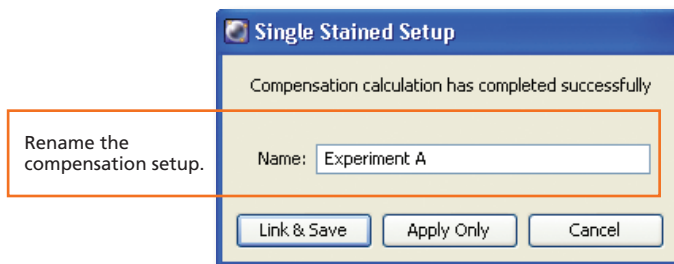


- Click  and then click  .

- View recorded data in the normal worksheets and gate the positive populations.

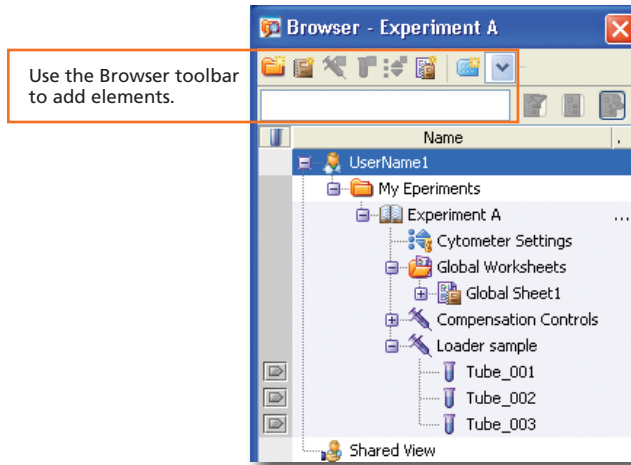


- Select Experiment > Compensation Setup > Calculate Compensation.

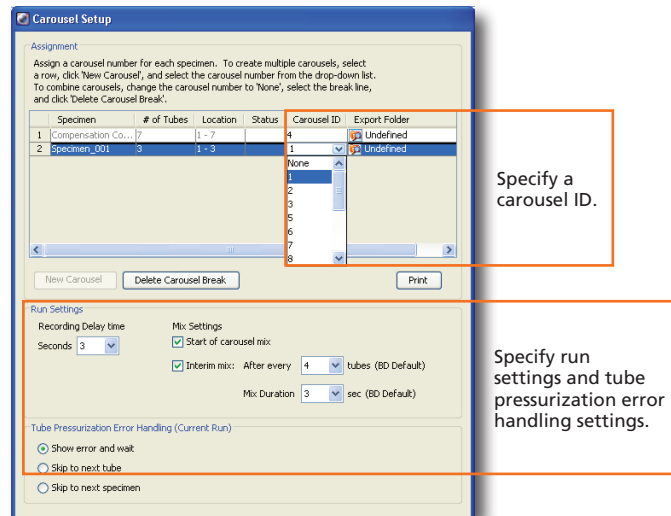


Recording Specimen Data

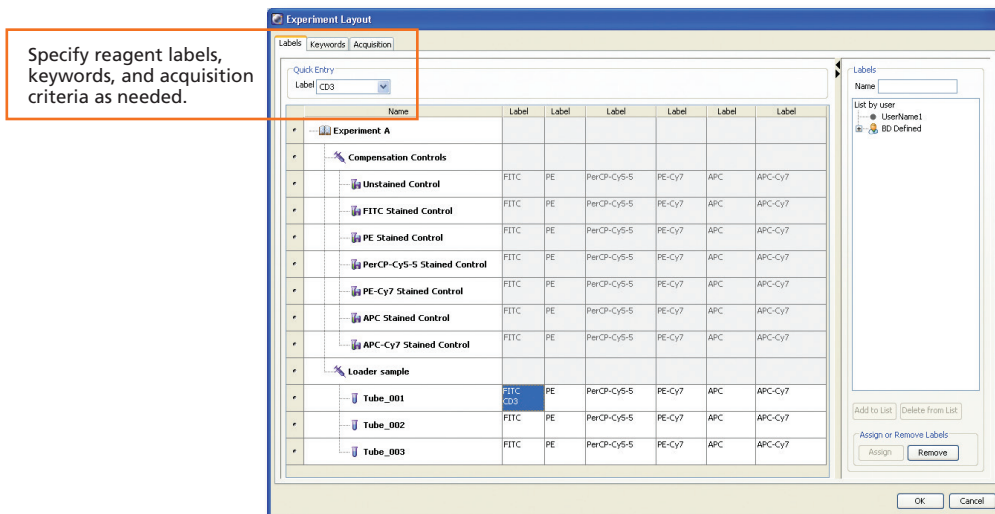
1 Create Browser elements.

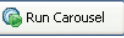


2 Specify carousel setup settings.

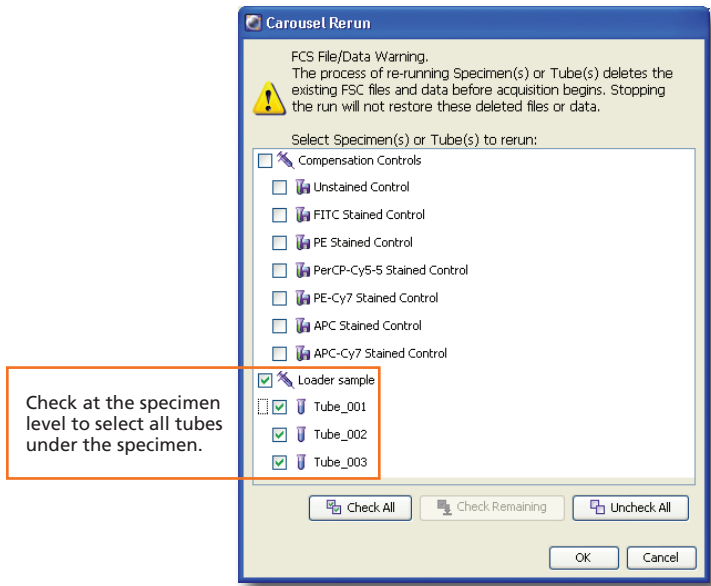


3 Make entries in the Experiment Layout.



4 Install the carousel on the Loader and click  on the Acquisition Dashboard.

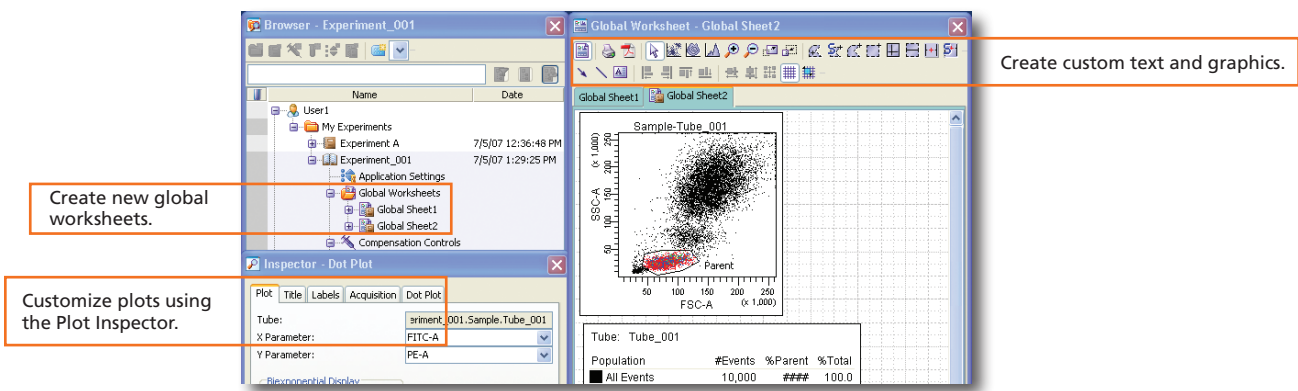
5 Specify tubes to run.



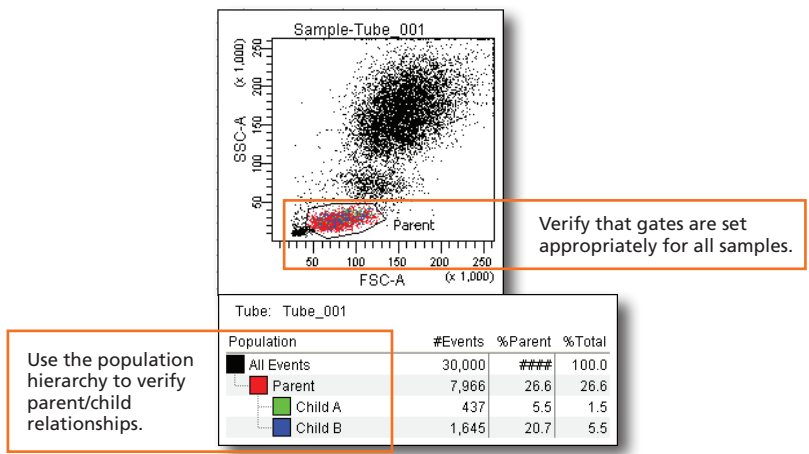
Check at the specimen level to select all tubes under the specimen.

Analyzing Data

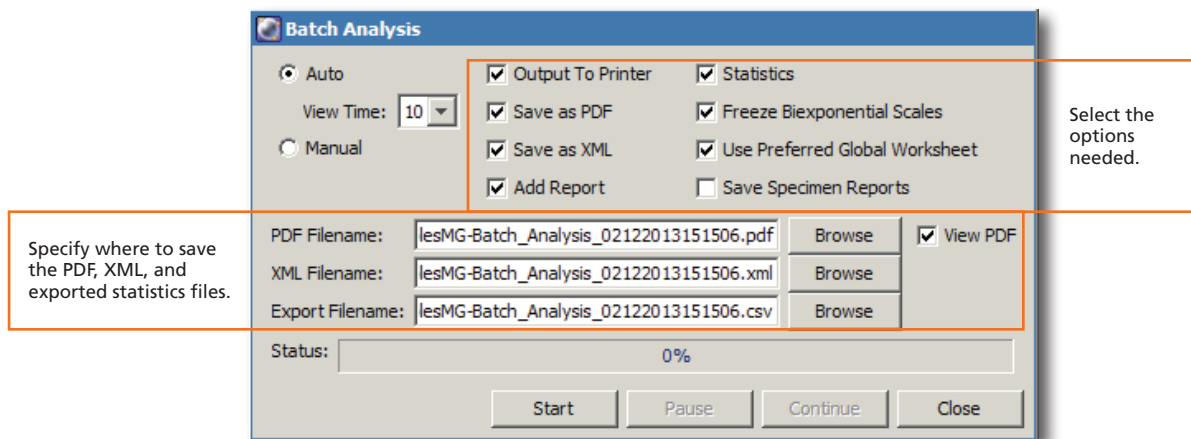
1 Create plots, gates, and statistics needed for analysis.



2 Perform quality control of the analysis.

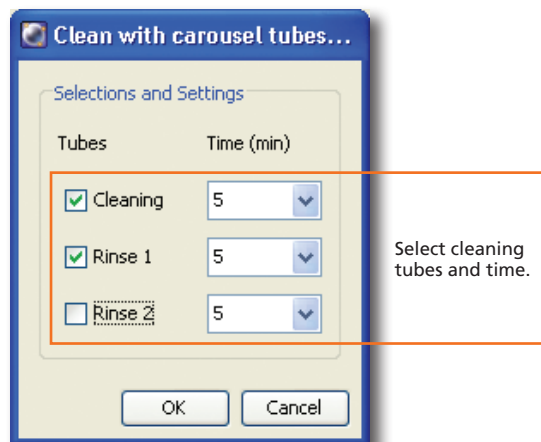


- 3 Do one of the following to print or export the results.
 - Select File > Print to print the active worksheet.
 - Select File > Export to export selected elements.
 - Right-click a specimen or experiment and select Batch Analysis (using a global worksheet).



Shutting Down the System

- 1 Select Carousel > Clean.



- 2 Install the carousel with the appropriate cleaning tubes and perform the cleaning cycle.
- 3 Perform a fluidics shutdown.
- 4 Empty waste and refill fluids if prompted to do so.
- 5 Turn off the cytometer main power and shut down the computer.