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.

Start Up System ▶ Check Performance ▶ Set Up Experiment ▶ Record Data ▶ Analyze Data ▶ Shut Down System

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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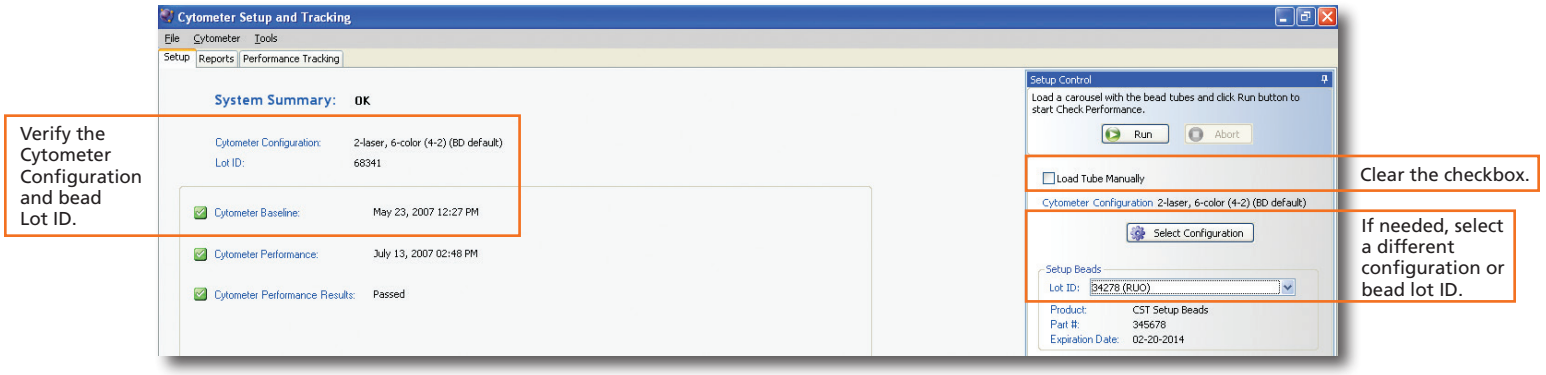
Starting Up the System

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

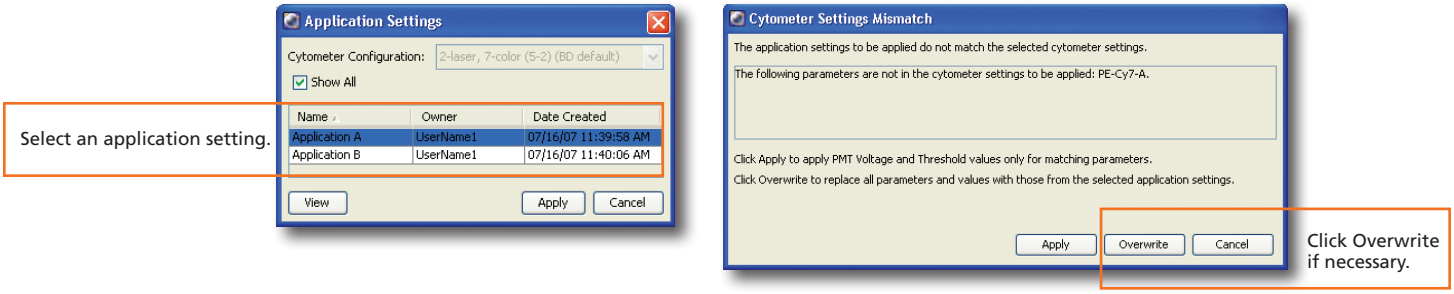
1. Select Cytometer > CST.



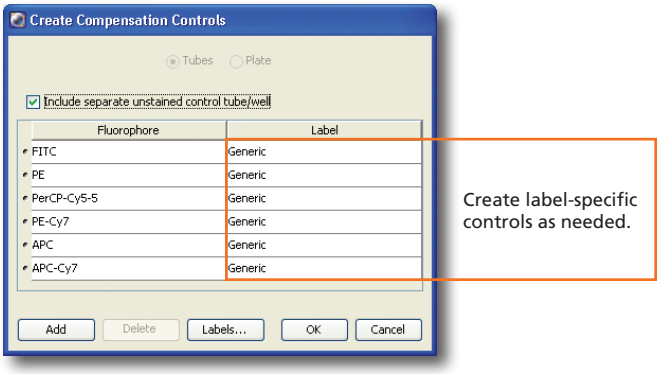
2. Place a tube of BD FACSDiva™ CS&T research beads in position 1 on a carousel and run the beads.
3. View the Cytometer Performance Report.
4. Close the Cytometer Setup and Tracking window.

Setting Up the Experiment

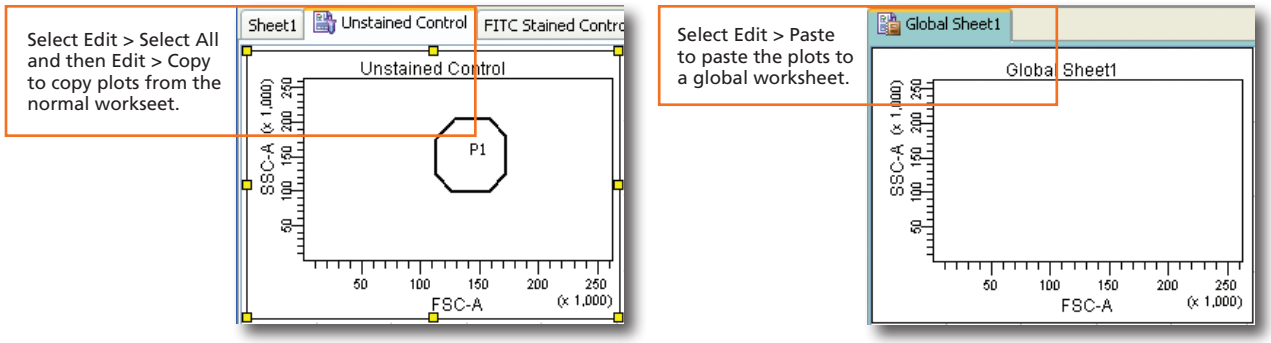
1. Select Edit > User Preferences and verify that selected preferences are appropriate.
2. Create an experiment in the Browser.
3. Right-click Cytometer Settings in the Browser. Select Application Settings > Apply.



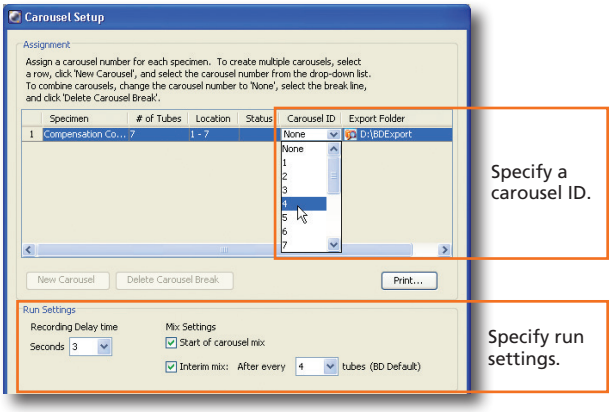
4. Select Experiment > Compensation Setup > Create Compensation Controls.



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



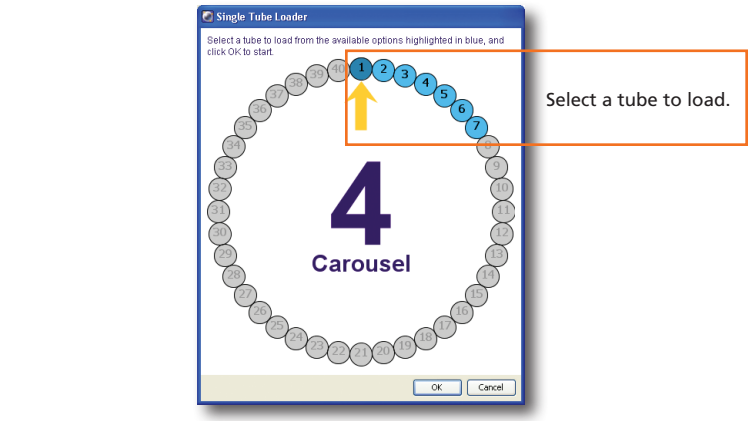
6. Specify carousel setup settings.

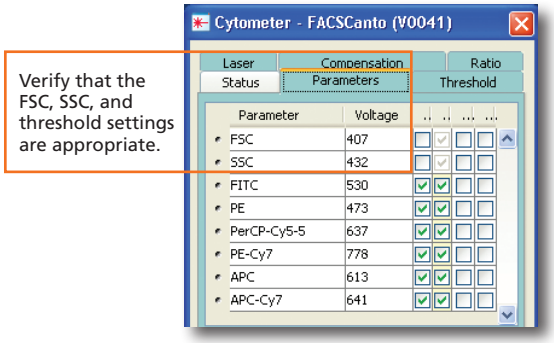


7. Verify that the current tube pointer is set to the Unstained Control tube and that a global worksheet is displayed.

8. Place compensation control tubes in the carousel in the same order as listed in the Browser and install the carousel on the Loader.

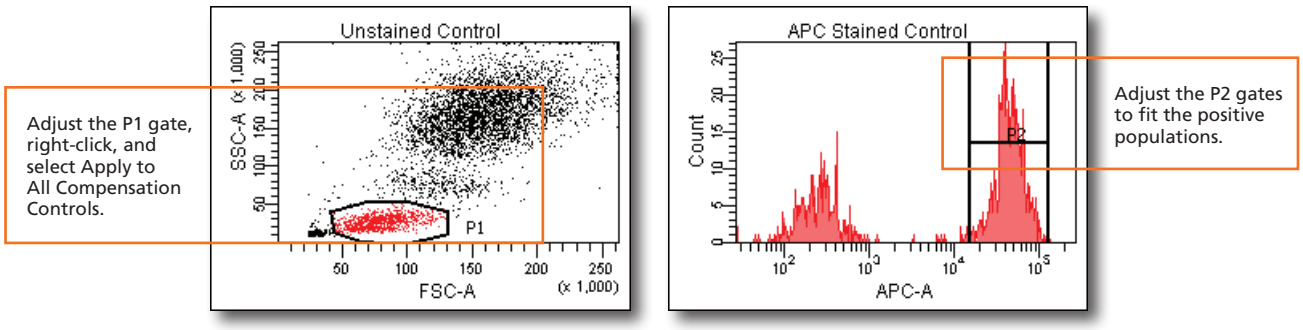
9. Verify that the cytometer is configured for automatic loading and click Run Single Tube.



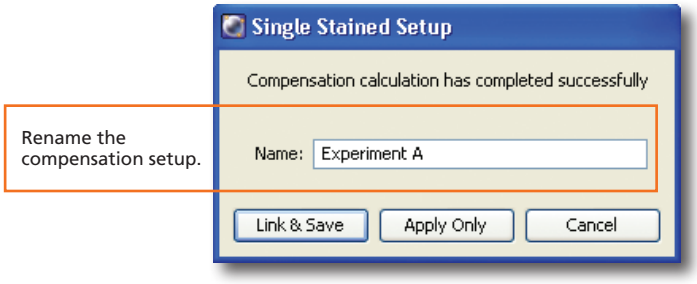


10. Click Unload and then click Run Carousel.

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

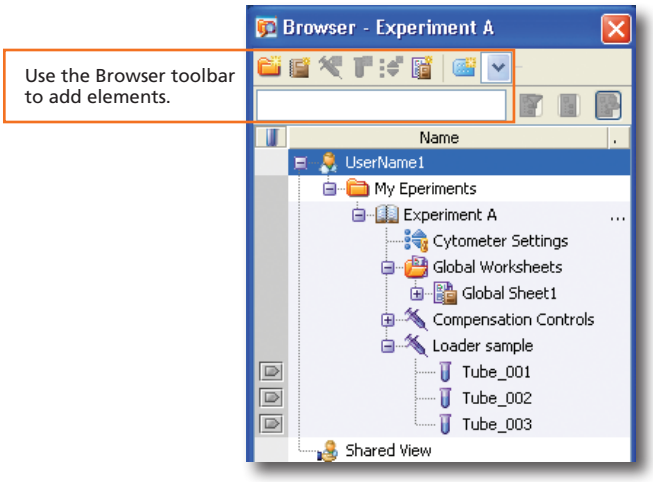


12. Select Experiment > Compensation Setup > Calculate Compensation.

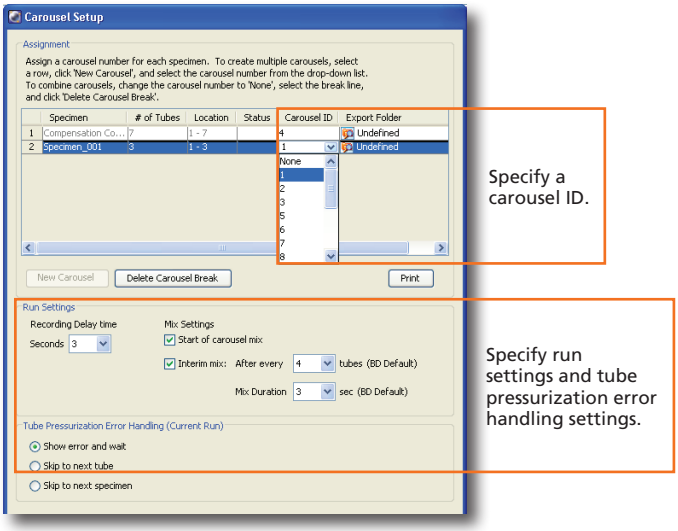


Recording Specimen Data

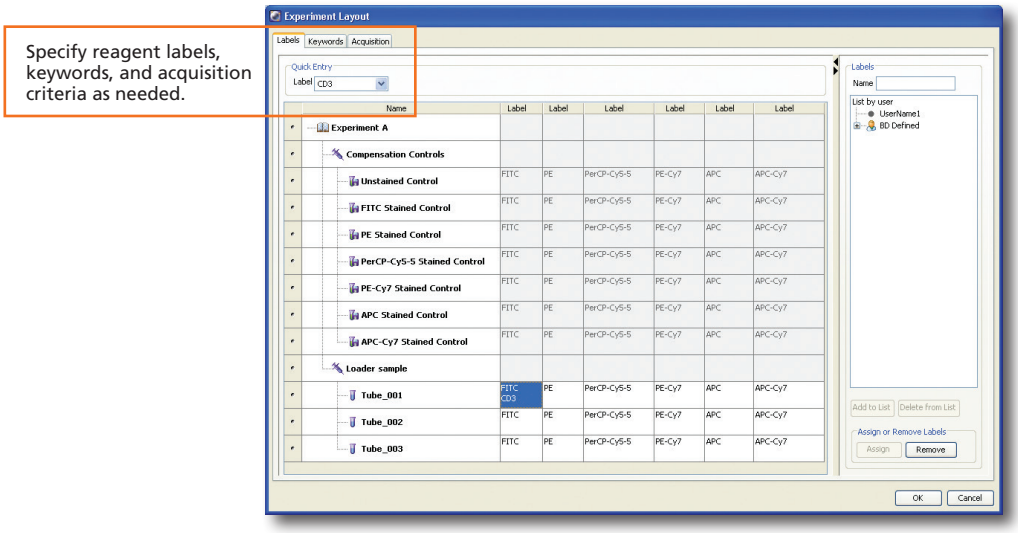
1. Create Browser elements.



2. Specify carousel setup settings.

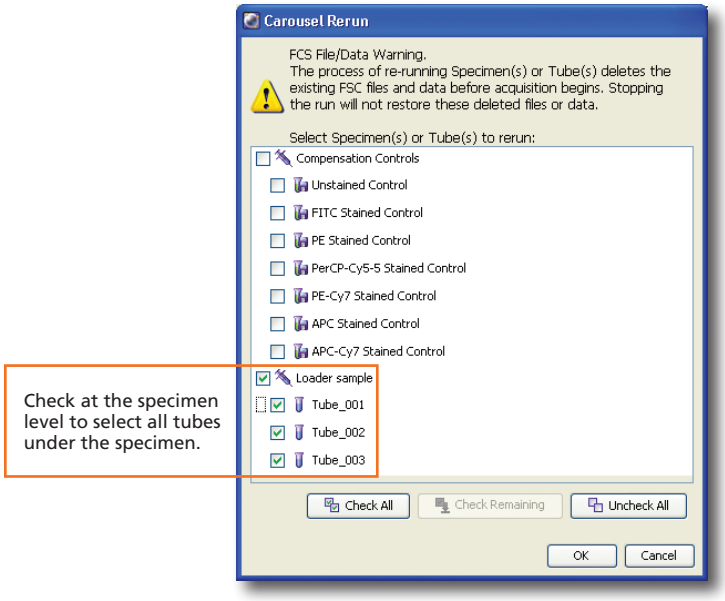


3. Make entries in the Experiment Layout.



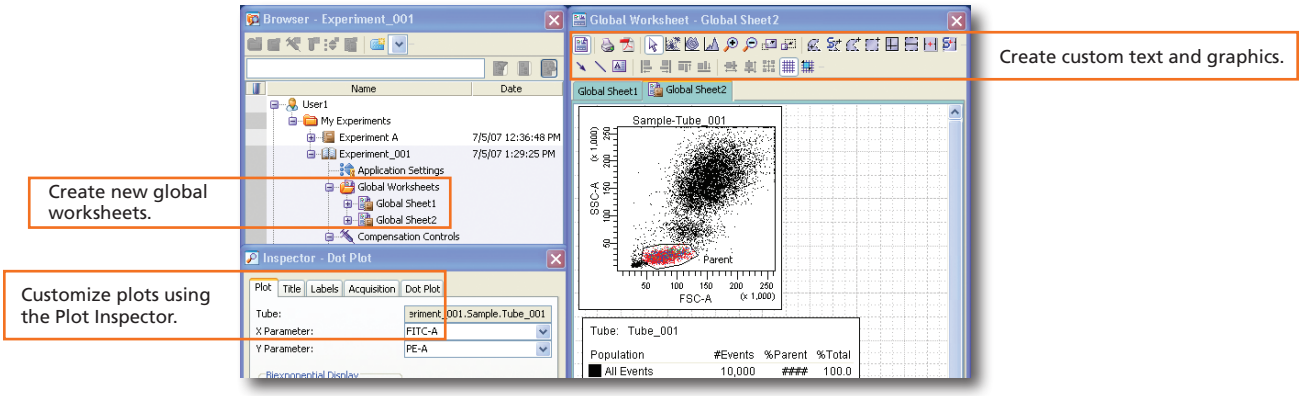
4. Install the carousel on the Loader and click Run Carousel on the Acquisition Dashboard.

5 Specify tubes to run.

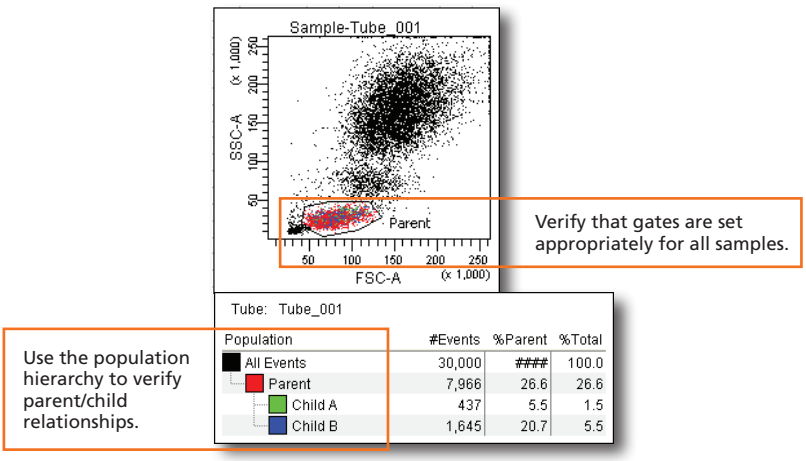


Analyzing Data

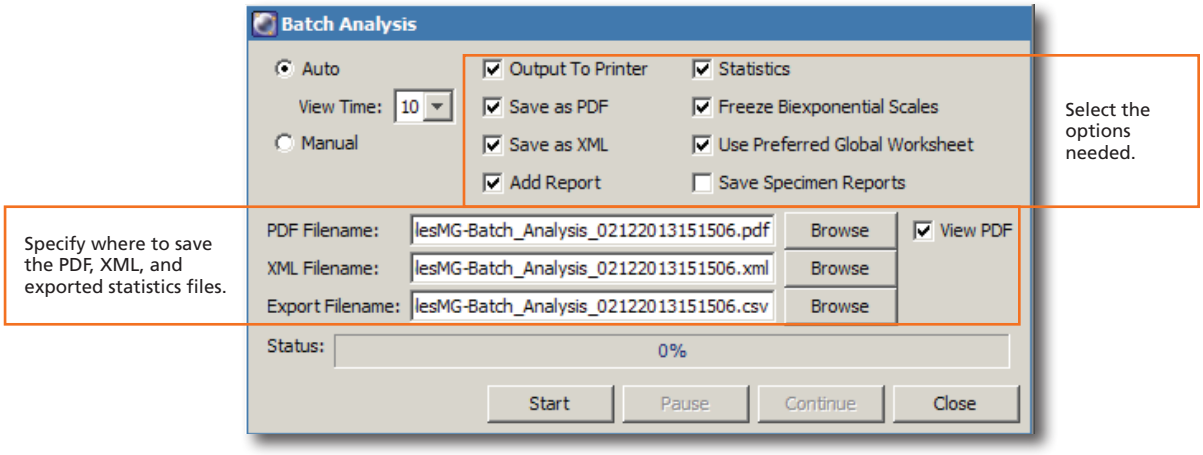
1 Create plots, gates, and statistics needed for analysis.



2 Perform quality control of the analysis.

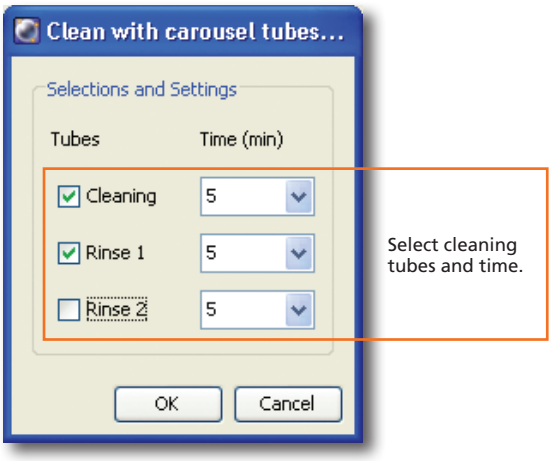


3. Do one of the following to print or export the results.
   - Select File > Print to print the active worksheet.
   - Select File > Export to export selected elements.
   - Right-click a specimen or experiment and select Batch Analysis (using a global worksheet).



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.