BD FACS DIVA™ Flow Cytometry Software

Streamlines workflows from instrument setup through data analysis

Features

- Streamlines laboratory workflows in a multi-system environment by enabling users of BD platforms to use a single software application for acquisition and analysis
- Provides easy-to-use instrument setup and quality control (QC) when used with BD FACS DIVA™ CS&T research beads
- Enables standardization across BD platforms for both inter and intrasite experiments with use of application settings
- Provides common feature sets that allow users to transition easily across BD platforms and from analysis to sorting applications
- Provides flexible data management tools for users to export data for use with FlowJo analysis software

BD FACS DIVA™ software, one of the most widely used flow cytometry acquisition and analysis software applications, helps to expand flexibility and improve efficiency in today’s integrated laboratory.

The software provides convenient and easy-to-use tools to simplify creation and management of samples and experiments. A wide array of analysis features provide laboratories that need a single software platform with efficient data management tools to simplify data storage and improve data organization. In addition, automated, flexible tools enable users to export data for downstream applications.

When used with BD FACS DIVA™ CS&T research beads, the software provides a set of robust features that can be used to characterize, optimize, and set up BD Biosciences cell analyzers and sorters. System optimization can reduce QC time from an hour to minutes, and enable you to track instrument performance with Levey-Jennings plots. The software can also automatically adjust user-defined application settings to account for changes in the cytometer. Standardizing experiments by using application settings can ensure consistency of results over time and across multiple platforms.
Specifications

Cytometers supported
BD FACSCanto™ platform, BD FACSAria™ platform, BD® LSR II, BD LSRFortessa™, BD LSRFortessa™ X-20, and BD FACSCelesta™ flow cytometers

Options supported
BD FACS™ Loader for the BD FACSCanto platform, BD® High Throughput Sampler for the BD FACSCanto platform, BD FACSCelesta, and BD LSR platforms, and BD FACS™ Accudrop for the BD FACSAria platform

Plates supported when using the High Throughput Sampler option
U, V, and flat-bottom 96-well plates, flat-bottom 384-well plates, Terasaki plates (BD FACSARia platform only)

Plot types
Histogram, 2D dot plot, 2D contour plot, 2D density plot

Scaling
Linear, log, biexponential

Auto gating
Autopolygon, autointerval, snap-to polygon, snap-to interval

Standard statistics
Minimum, maximum, geometric mean, mean, median, standard deviation, percent coefficient of variation, mode

Robust statistics
Robust standard deviation (rSD), robust percent coefficient of variation (rCV)

Export formats
JPG, TIFF, PNG, BMP, XML, CSV, PDF

Operating system
BD FACSDiva™ v9.0 or later: Microsoft® Windows® 10, 64-bit

Software features across platforms

In a single application, BD FACSDiva software provides common and easy-to-use features that simplify instrument use, experiment and sample management, and ease transition across BD instrument platforms, from cell analysis to sorting.

Graphical interface for changing cytometer configurations
Create configurations for multiple filter, mirror, and fluorophore combinations used in the laboratory. Only users with administrative access can create, modify, or delete configurations.

Hierarchical browser interface for creating and managing samples and experiments
Create new experiments based on an existing template, add new specimens and tubes to an experiment, and select a plate type for the experiment (with loader option). Share experiments as needed to support efficient research collaboration and data sharing.

Common workspace for plots and statistics
Organize your workspace with use of global and normal worksheets. Use global worksheets when creating plots and statistics for acquiring and recording data from a set of tubes. Use normal worksheets when displaying plots and statistics for multiple tubes on a single worksheet.
For each parameter, CS&T determines a baseline PMT voltage that places the dim bead at an MFI equal to 10 x standard deviation (SD).

Correctly setting PMT voltage gain improves resolution, and reduces re-classification errors, yielding reliable results.
Application settings

BD FACSDiva software enables users to create and re-use their own unique settings for any application. These settings, called application settings, ensure that the data and analysis results are as reproducible as possible. Standardizing experiments by using application settings can ensure consistency of results over time and across multiple platforms. This helps take the guess work out of setting up the cytometer for specific application types for a range of users and results in reproducible data from day to day.

CS&T workflow with application settings

Analysis and Data Management

BD FACSDiva software provides an extensive list of easy-to-use analysis features for laboratories that want a single software platform for acquisition and analysis. This includes:

- One-click snap-to gating tools
- Hierarchical gating
- The ability to copy and paste gates
- Histogram overlay
- Bi-exponential display
- User selectable plot configurations
- Batch analysis

Additional features include automated compensation, user log for user tracking, and data management tools to simplify data storage and improve organization of flow cytometer data. For laboratories that want to integrate BD FACSDiva software for use with other third-party analysis software, BD FACSDiva software provides automated, flexible tools to export FCS data (FCS 2.0, 3.0, 3.1), experiments (XML format), and results (CSV, PDF) for external use.

For more information, visit bdbiosciences.com/instruments/software/facsdiva.