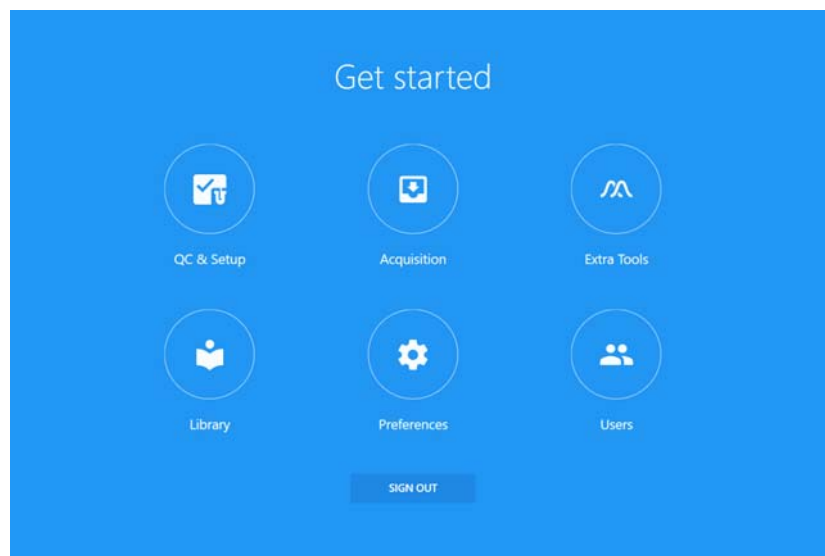


Software Overview

SpectroFlo software allows you to acquire and analyze samples and adjust instrument settings. Once you log into the software, a Get started menu appears.

Get Started Menu

The Get started menu provides six modules that allow you to perform various functions. These same six modules are also accessible across the upper-right corner of each module screen.



The following table describes options in the Get started menu.

Module	Description
QC & Setup	Daily QC ensures that the instrument is in optimal condition for use. Run SpectroFlo QC Beads daily to assess system performance and to adjust settings to account for day-to-day variation. Levey-Jennings reports keep track of trends in system performance. Setup allows you to create reference controls. See “QC & Setup” on page 27 for information.
Acquisition	The Acquisition module allows you to create experiments to acquire and analyze data. Experiments can be created through a guided wizard or created from previously saved templates. See “Acquisition” on page 41 for information.
Extra Tools	Here, FCS files can either be unmixed or compensated using virtual filters. See “Unmixing and Compensation” on page 57 for information.
Library	The library allows you to store experiment templates, worksheet templates, user settings, fluorescent tags, SpectroFlo QC bead information, label information, keywords, and Loader settings. See “Library” on page 75 for information.
Preferences	Software preferences can be changed to customize the software. Default plot sizes, fonts, gate colors, print layouts, statistics box table option, and more can all be changed in the Preferences. See “Preferences” on page 81 for information.
Users	The Users module contains user management options and administrative controls. See “Users” on page 90 for information.

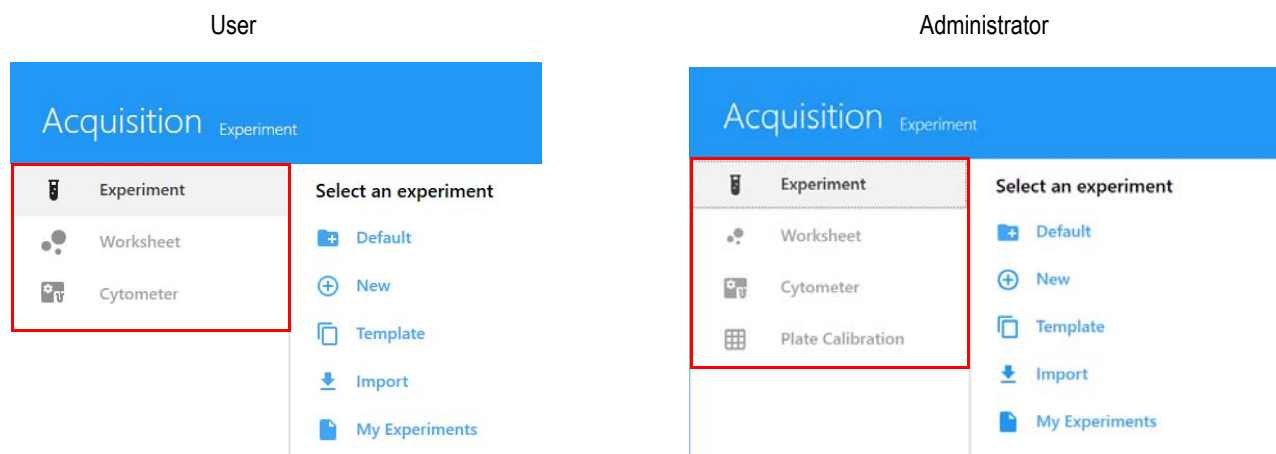
About Experiments

The Acquisition module provides the tools necessary to acquire data, such as the acquisition controls used to start, stop, and record data, and the instrument controls used to set the threshold and adjust the detector gains. See “[Experiment Display](#)” on page 42 for more information on these controls. Experiments contain the fluorescent tags and labels used in the experiment, the stopping criteria, and the groups of tubes/wells run, which can include the reference control group. You can create groups for your samples, if you wish, to conveniently organize samples by type or staining panels, for example.

Opening an Experiment

When you click Acquisition from the Get started menu, the Acquisition Experiment menu (below) is displayed, allowing you to open a default or template experiment, create a new experiment, or import an experiment. A wizard walks you through the steps to create a new experiment.

■ **NOTE:** By default the Acquisition menu in the left pane is collapsed, showing only the icons for Experiment, Worksheet, Cytometer, and Plate Calibration. To expand the menu to show the labels, click the arrows (>>) at the bottom of the pane.



Experiments can be created using several different methods. The following table describes the options in the Acquisition Experiment menu:

Method	Description
Default	Opens a new experiment with one group containing one tube and a set of labels and fluorescent tags in a default experiment worksheet template. The default experiment is user configurable. It is the quickest way to begin sample acquisition.
New	Opens the New Experiment Wizard to guide you through creating an experiment.
Template	Allows you to select from a list of saved experiment templates (see page 19).
Import	Imports an experiment ZIP file that was exported.
My Experiments	Allows you to select from a list of saved experiments. NOTE: Original experiments can be duplicated without data, which is equivalent to opening an experiment template. Right-click an experiment in My Experiments and select Duplicate (with or without data).

Completed experiments can be accessed through the My Experiments option in the Acquisition Experiment menu. Use the column headers to sort the list of experiments. For every tube recorded, two FCS files are saved, one raw and one unmixed. Use My Experiments to open experiments you already ran, as you may want to review the data or acquire more samples. You can also export experiments from My Experiments (below). A ZIP file is exported, containing all the raw data files, if applicable (and unmixed files for unmixed experiments), as well as the worksheet templates and experiment template.

Experiment	Created By	Date Created	Date Modified
Experiment_005	Admin	August 08, 2018 - 17:00 PM	August 08, 2018 - 17:00 PM
Experiment_004	Admin	August 08, 2018 - 14:47 PM	August 08, 2018 - 14:47 PM
Experiment_003	Admin	August 08, 2018 - 13:31 PM	August 08, 2018 - 13:31 PM

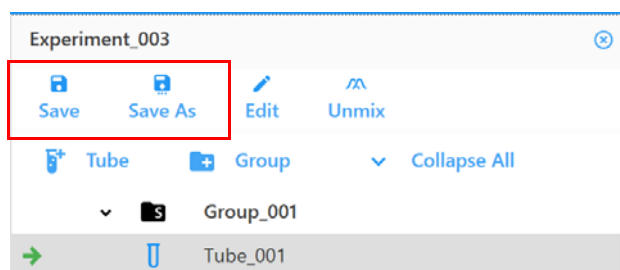
FCS Files

FCS files generated from an experiment are stored in the Export folder by default, or the folder you set as the default. See [“Storage Preferences” on page 88](#) for information. Experiments can contain the following types of FCS data files for each tube run:

- raw data files only (for samples that were acquired in an experiment)
- raw data files + unmixed data files (for samples that were acquired and unmixed live during acquisition)
- unmixed data files only (for samples that were unmixed post acquisition)

Experiment Templates

Use the Save As option above the experiment’s tube/group (hierarchy) list to save the current experiment as a template, which can then be used for running similar experiments. Experiment templates include fluorescent tags used in the experiment, reference controls, groups/tubes, labels, worksheets, and stopping criteria. Templates are saved in the library. To open and use a template, select Template from the Acquisition Experiment menu. See [“Experiment Templates” on page 78](#) for more information on experiment templates.



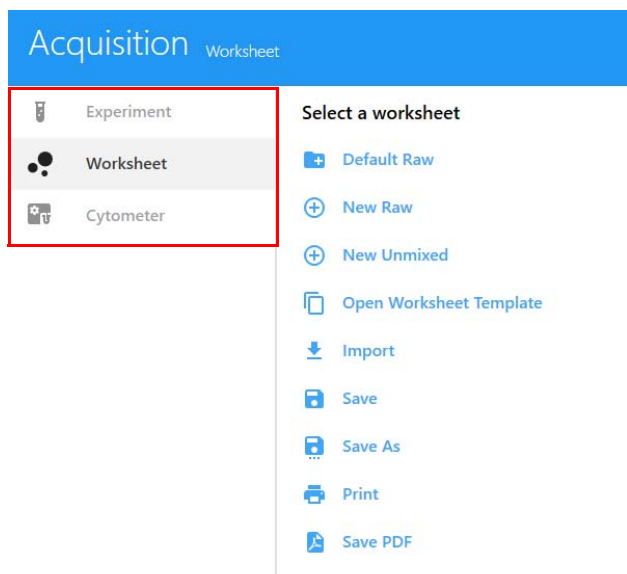
About Worksheets

Worksheets are used to visualize the data in the experiment. Each experiment requires at least one worksheet. A worksheet allows you to view the data in plots during acquisition, as well as perform analysis functions. Worksheets contain the tools necessary to create plots, gates, annotations, statistics, and the population hierarchy. Worksheets are saved with the experiment and can be saved separately and reused across experiments.

Two types of worksheets are available—worksheets for raw data and worksheets for unmixed data. You must select the appropriate worksheet to view the corresponding type of data. When viewing raw data, the parameters on the plots in a raw worksheet reflect the channel names, for example, B1-A, R1-A, V1-A. When viewing unmixed data, the parameters on the plots in an unmixed worksheet reflect the fluorescent tags, for example, PerCP-A.

Opening a Worksheet

To select a worksheet, click **Worksheet** in the Acquisition menu. The Select a worksheet menu appears (below). You can open a new raw or new unmixed worksheet. These worksheets open with a single FSC vs SSC plot. Use the worksheet tool bar to add plots and other elements. All worksheets are saved as template files (WXML) and can be opened using the **Open Worksheet Template** option. You can also import worksheets that were exported, as well as save, print, and save a worksheet PDF.

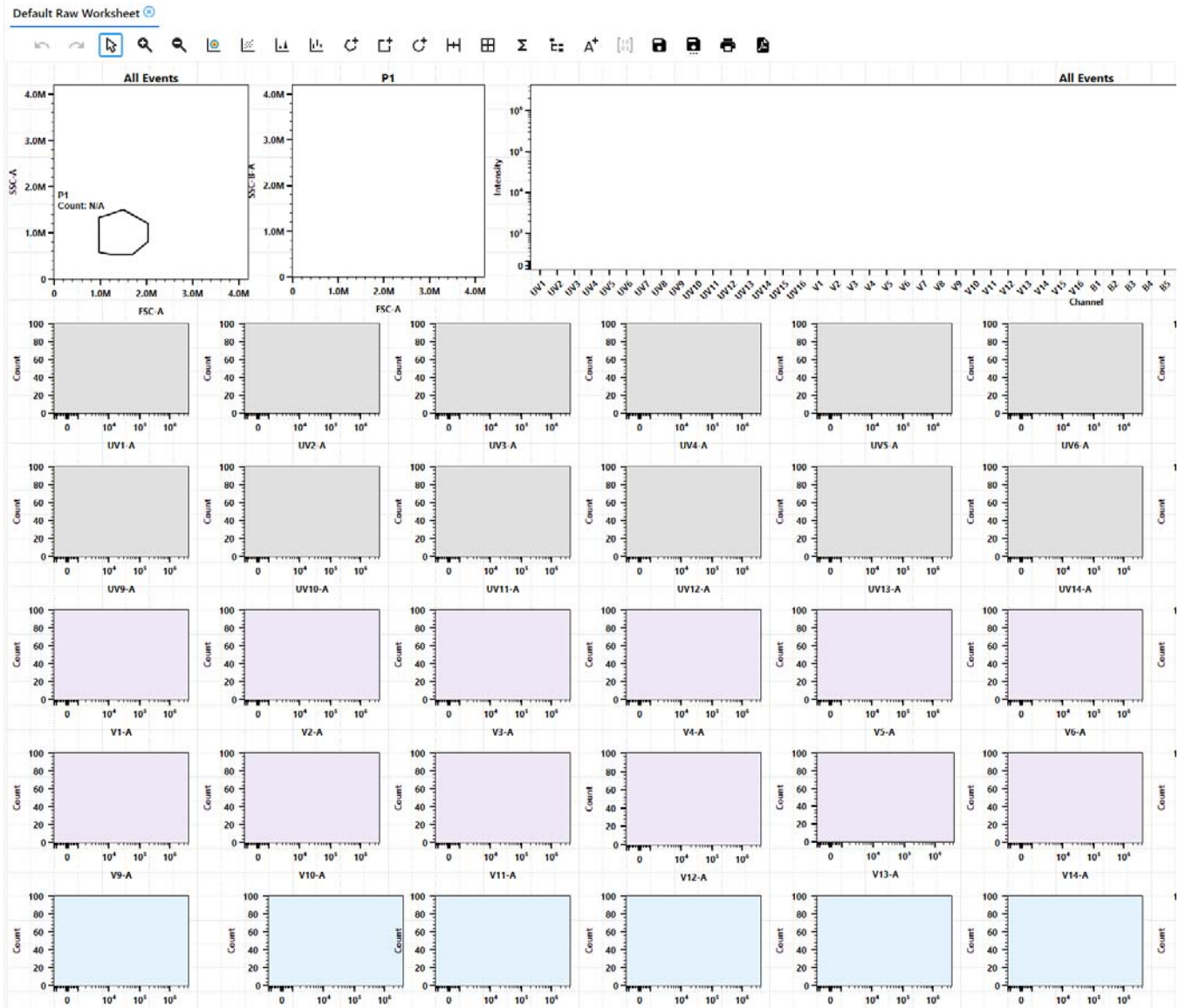


The following table describes the options in the Acquisition Worksheet menu:

Method	Description
Default Raw	Opens a default raw worksheet that can be used for experiments where reference controls will be acquired. Do not overwrite this worksheet. Always use Save As to save this worksheet with a new name.
New Raw	Opens a new raw worksheet.
New Unmixed	Opens a new unmixed worksheet.
Open Worksheet Template	Allows you to select from a list of saved worksheet templates. A default raw and default unmixed worksheet are provided.

Method	Description
Import	Imports a worksheet template that was exported.
Save, Save As, Print, Save PDF	Saves the worksheet, saves the worksheet with a new name, prints the worksheet, saves a PDF of the worksheet.

You can have multiple worksheets open at a time. The currently displayed worksheet appears with a blue line under the worksheet name. Because you can select different worksheets for different groups or tubes in an experiment, each tube will have a worksheet associated with it.



Each user can define a default raw worksheet and a default unmixed worksheet. Open the default worksheet and set it up for your experiment, then select Save As to save this worksheet with a new name. The worksheet will be available to select when you create an experiment. You can use this worksheet, open a template worksheet, or create a new worksheet.

All worksheets are saved in the library. See [“Worksheet Templates” on page 77](#) for more information on worksheet templates.