

# Job Aid

## BD FACSDiscover™ S8 Cell Sorter: Sorting into plates

This job aid contains instructions for how to sort into plates and review the index sort data in BD FACSCorus™ Software. For additional information, see the *BD FACSDiscover™ S8 Cell Sorter with BD CellView™ and BD SpectralFX™ Technology User's Guide*.



### Before you begin

- Start up the system and run the daily fluidics startup procedure.
- Add and design an experiment, adjust your scatter and spectral gains and Region of Analysis (ROA) for your sample.
- Perform spectral unmixing by recording data for single-stained controls, if applicable.
- Record pre-sort data and create sort gates on the View Data page.

### Working with the Set Up Sort tab

#### Preparing the sort

1. Click the **Set Up Sort** tab.
2. Make appropriate selections in the Collection Setup panel.  
Select the **Enable Index Sort** checkbox, if needed. For an Index Sort, FCS data is recorded automatically for the entire sort and images are saved for sorted events.
3. (Optional) Click **Optimize Plate** to verify plate alignment.  
**NOTE** The splash shield must be installed below the sort block to perform the optimize plate workflow.
4. In the Sort Setup panel, select the well(s) of interest on the plate layout in one of the following ways:
  - Drag a region around the wells.
  - Select an entire row or column by clicking the letter or number associated with the row or column.
  - Select the entire plate by clicking the **Select All** button.

**COLLECTION SETUP**

Format:   Enable Index Sort

BD-Defined Plate:

Plate Name:  [Optimize Plate](#)

Sort Mode:

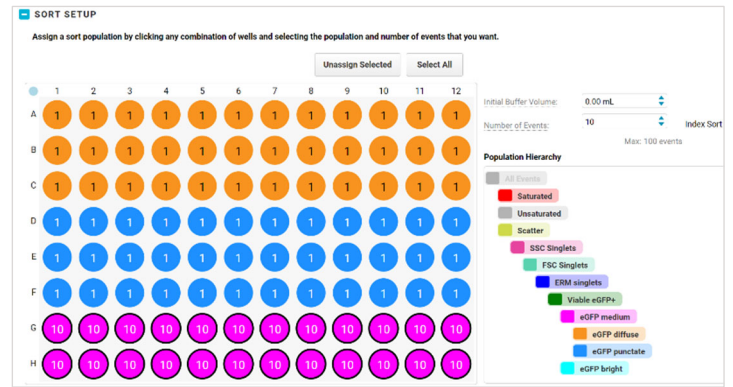
**SORT SETUP**

Assign a sort population by clicking any combination of wells and selecting the population and number of events that you want to sort.

	1	2	3	4	5	6	7	8	9	10	11	12
A	●	●	●	●	●	●	●	●	●	●	●	●
B	●	●	●	●	●	●	●	●	●	●	●	●
C	●	●	●	●	●	●	●	●	●	●	●	●
D	●	●	●	●	●	●	●	●	●	●	●	●

## Preparing the sort, continued

- Assign a population to the selected wells by clicking the population of interest in the population hierarchy.
  - Enter the starting buffer volume and number of events to be sorted per well.
  - Repeat steps 4 through 6 as needed to set up the remainder of the plate.
- NOTE** A population does not need to be assigned for every well of the plate.



## Loading the collection device

- Load your collection plate onto the stage in the proper orientation, with well A1 in the front left corner.
- Close the sort chamber door.

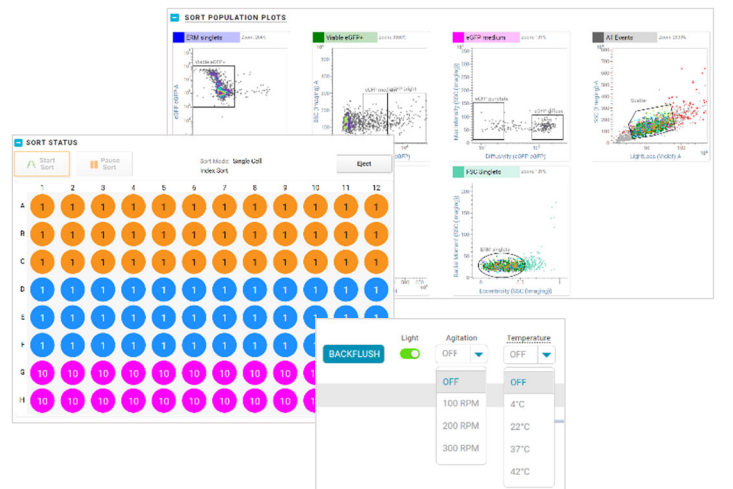
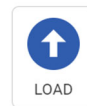
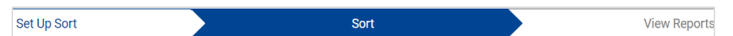
## Working with the Sort tab

### Sorting

- Click the **Sort** tab.
  - Load the sample tube and adjust the flow rate, if needed.
  - Click **Start Sort** in the Sort Status panel.
- NOTE** The instrument will take several seconds to initialize the sort before the sort begins.
- Monitor the sort as it progresses.
    - Adjust gates as needed in the Sort Population Plots and Additional Plots panels.
    - Monitor the sort progress in the Sort Status panel.
    - Record additional data while the sort progresses, if needed.

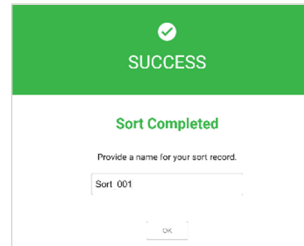
**NOTE** Additional data cannot be recorded during an index sort, as the index sort is already recording data and images automatically.

- Adjust the sample tube's temperature and agitation speed in the dashboard.
- Toggle the light switch to help visually monitor the sample volume as the sort progresses.



## Sorting, continued

- When the sort finishes or is stopped, name the sort report.
- Unload the tube, if needed.

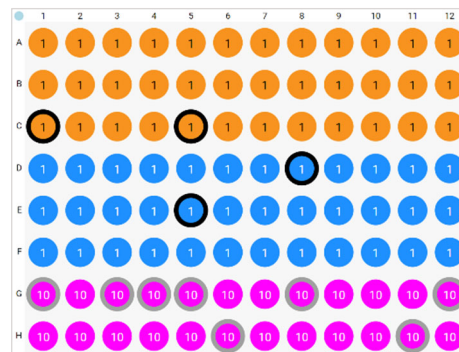
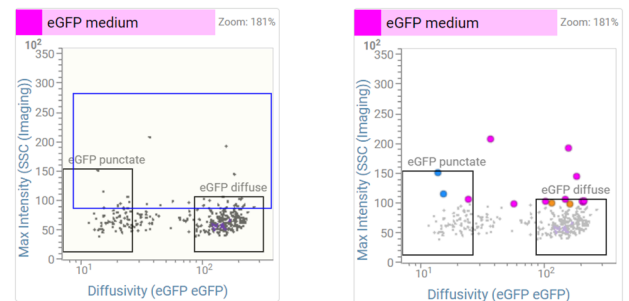


## For index sorts: Reviewing the index sort data

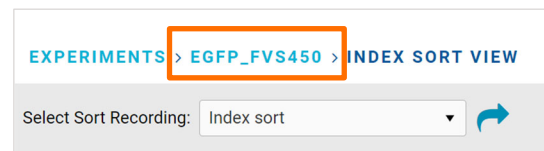
- Click the **View Data** tab.
- Click the blue **INX** icon next to the Index Sort file in the Data Sources panel.



- In the Index Sort View, do any of the following:
  - Select the well(s) of interest in the Sort Outcome panel. The image wall updates to display the sorted events, and the Sort Population Plots display enlarged dots corresponding to the sorted events.
  - Drag a region around events of interest on a plot. Wells in the Sort Outcome panel will be outlined in gray or black, indicating that gated events were sorted into those wells.
  - Select a sort from the Select Sort Recording menu, then click the export (arrow) icon to export index sort data.



- Click the experiment name to return to the View Data page.



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