## **Tutorials**

## **BD FACS Sample Prep Assistant III**

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History

Revision	change
23-10818-00 Rev. A	e 5, 2009 Initial

# **Tutorial 1**

## Using BD Multitest Panels with the SPA III

After completing this tutorial, you will be able to:

- Create and run a worklist for a BD Multitest panel.
- Use different primary tube types on the same primary tube rack.
- Prepare a second worklist while running the first.
- Incubate samples offline.
- Import a worklist into BD FACSCanto clinical software.

### **Before You Begin**

#### **Tutorial Requirements**

Use BD FACS<sup>™</sup> SPA software and BD FACSCanto<sup>™</sup> clinical software to perform this tutorial.

Ensure that a user account has been created for you by your system administrator.

**NOTE** This tutorial is performed without an instrument. If an instrument is connected to your workstation, ensure that it is turned off before you start SPA software.

**1** Turn on the computer and double-click the *BD FACS SPA Software* shortcut on your desktop.

The welcome screen is displayed, followed by the login dialog.

- **2** Select your user name from the menu and type your password.
- **3** Click **OK**.

The Prep Worklist window opens.

Sample Name	Sample ID	Case Number	Primary Tube Typ	e Primary Raci	Position Par	el Name	Carousel Position
Regeni Rack ID				Secondary Tube	s Carousel Post	ion and Name	Bun
Rock: 1 of 1 Skip Initial Sample His Inclusive Office	8			Status Messages		IDLE	Shubdown
Caouel D Unique Caouel D Unique Caouel I Coordination of the Caouel I Coordination of the Caouel I	😼 🖗 (	Ref (873)	0000	Status OK			

#### Setting Up a Worklist

In this section, you will create a worklist and specify sample IDs, primary tube types, sample tube positions, panels, and carousel rack positions for the secondary tubes. You will also select a reagent rack appropriate for staining all the tubes in the selected panels.

SPA software uses this information to direct the instrument during sample preparation. Worklists can be saved, re-opened, and printed.

#### **Entering Sample Information**

1 Click in the text field directly below the **Sample ID** heading and type Control.



The sample is automatically assigned to Primary Rack Position 1. The primary tube rack display highlights position 1, signifying the position of this primary tube.

The panel name defaults to the last setting from the previous worklist.

**TIP** A Sample ID is required for every sample entry in a worklist. Other sample information (eg, sample name and case number) is optional.

**TIP** Resize columns in the worklist by placing the cursor in the column title and dragging to the right or left.

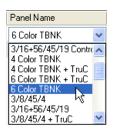
- **2** Press the Tab key twice to advance to the **Primary Tube Type** field.
- **3** Use the **Primary Tube Type** menu to specify *BD Vacutainer* as the primary tube type.
  - Primary Tube Type BD Vacutainer BD Vacutainer Sarstedt Streck Cyto-Chex



Selecting the incorrect tube type can cause incorrect results and/or damage to the instrument during operation.

**4** Press the Tab key twice to advance to the **Panel Name** field.

**5** Use the **Panel Name** menu to select 6 *Color TBNK* as the panel name.

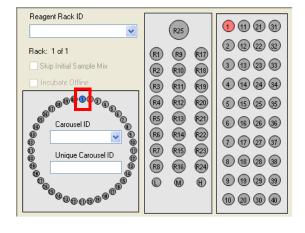


6 Color TBNK is a one-tube panel. Therefore, the secondary tube for this panel is assigned to Carousel Position 1.

The Secondary Tubes Carousel Position and Name field shows the tube in the panel.

Secondary Tubes Carousel Position and Name
01. CD3/CD16+56/CD45/CD4/CD19/CD8

Carousel rack position 1 is highlighted, signifying the location of the secondary tube.



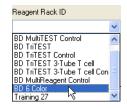
**6** Complete the remainder of the worklist, so that it looks like the following figure.

	<b>FACS SPA</b> Setup Instrumer	nt Administration	n Heln							
Prep Worklist 1										
	Sample Name	Sample ID	Case Number	Primary Tube Type	Primary Rack Position	Panel Name	Carousel Position			
		Control		BD Vacutainer	1	6 Color TBNK	1			
		Patient 1		Sarstedt	2	6 Color TBNK	2			
		Patient 2		Streck Cyto-Chex	3	6 Color TBNK	3			
•	_	Patient 3		BD Vacutainer	4	6 Color TBNK	4			
*										

#### **Making Worktable Assignments**

In this section, you will select a reagent rack that includes all of the reagents required for the 6 Color TBNK panel. In addition, you will create a unique carousel ID and select offline incubation.

**1** Select *BD* 6 *Color* from the **Reagent Rack ID** menu.



R1 on the Reagent Rack Map on the worktable display is highlighted, indicating that reagent is required in that position.

To view the name of the reagent associated with a reagent rack position, place the cursor over the highlighted position in the Reagent Rack Map. The reagent name is displayed.

2 Select 1 from the Carousel ID menu to specify a BD FACS<sup>™</sup> Loader carousel rack ID.

**NOTE** The carousel rack ID number is located on top of the BD FACS Loader carousel rack.

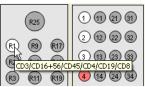
**3** Type *Training* into the Unique Carousel ID field.

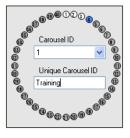
**NOTE** The unique carousel ID can also be entered using the barcode reader.

**4** Select the **Incubate Offline** checkbox.



This feature allows you to self-monitor the incubation of your samples with lyse solution. By removing the initial carousel rack, you are able to begin processing another worklist, thereby increasing your throughput.





## **Entering Lot Information**

With SPA software, you can enter lot information for reagents, BD Trucount<sup>™</sup> beads, and control beads. In this section, you enter simulated lot information for the BD 6 Color reagent.

1 Select Setup > Lot IDs.

The Lot IDs dialog opens.

2 Locate the CD3/CD16+56/CD45/CD4/CD19/CD8 reagent and type 12345 in the Lot ID field.

Reagents TruCOUNT Bead	
Reagent Name	Lot ID
CD3/CD8/CD45/CD4	00000
CD3/CD16+CD56/CD45/CD19	00000
CD3/CD16+56/CD45/CD4/CD19/CD8	12345
CD4/CD8/CD3	00000
CD3/CD4/CD45	00000
CD3/CD8/CD45	00000
CD3/CD19/CD45	00000
CD3/CD16+CD56/CD45	00000
CD14/CD64	00000
CD15/CD117	00000
CD15/CD34	00000
CD7/CD33	00000
AntiHLA-DR/CD13	00000
AntiHLA-DR/CD34	00000
CD4/CD25/CD3	00000 🗠
<	>

**3** Click **OK** to accept the lot information and close the dialog.

Lot IDs are saved with a worklist.

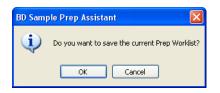
### **Running a Worklist**

1 Click Run.

A verification dialog opens. The dialog requests that key requirements are verified. It also specifies the volume of the reagents needed for the run.

BD Sam	BD Sample Prep Assistant							
i)	Please make sure that the Open Tube Port is removed from the Reagent Rack and the Reagent Rack contains at least: 92 $\mu l$ of CD3/CD16+56/CD45/CD4/CD19/CD8							
	Please remove the caps from the reagent vials							
	Make sure that 500 $\mu l$ of Antifoam A Concentrate was added to the waste tank.							
	Continue?							
	OK Cancel							

- **2** Complete the verifications, then click **OK**.
- **3** Click **OK** again to save the worklist.



Choose a location to save the worklist and name it Multitest Training.

A saved worklist can be opened from the File menu in the Prep Worklist window and re-used.

#### Sample Processing

Sample processing begins with some instrument checks, followed by reagent dispensing. As samples are processed:

- The Status text area describes the steps of the process.
- Rack positions in the worktable display are highlighted to indicate the tubes and vials involved in each step.
- The status bar at the bottom of the **Prep Worklist** window displays the cumulative number of probe pierces.

	s Sample ID	Case Number	Primary Tube Type	Primary Back Position	Panel Name	Carpusel Position
2 * C/0 + 1 - 4 *	Control		BD Vacutainer	1	6 Color TBNK	1
	Patient 1		Sarstedt	2	6 Color TBNK	2
	Patient 2		Streck Cyto-Chex	3	6 Color TBNK	3
	Patient 3		BD Vacutainer	4	6 Color TBNK	4
Reagent Rack ID						

#### **Preparing a Second Worklist**

While you are running one worklist, you can prepare another.

**1** Select File > New Prep Worklist.

A new, second worklist opens in the **Prep Worklist** window. You can now enter sample information on the second worklist as the first worklist runs.

- **2** (Optional) Enter a sample on the second worklist by duplicating the steps in Entering Sample Information on page 5.
  - **NOTE** Whenever user action is required for the worklist being run, a dialog appears.

**3** To monitor the status of the run, display the running worklist by clicking its tab.

C: IDoc	uments and Setti	ngs lbrownhe IMy L	)ocumentsWultitest Tra	ining xml runnin 🔊 rep W	/orklist 1
	Sample Name	Sample ID	Case Number	Primary Tube Type	Primary Rack Position
1		Control		BD Vacutainer	1
*					

**4** Return to the second worklist by clicking its tab.

In this tutorial, you do not run a second worklist. At this time, close the second worklist without saving it, and return to the running worklist.

5 Click Close.

If you have entered information in the second worklist, a dialog opens asking if you want to save it.

6 Click No.

## **Completing the Run**

**1** Click **OK** to complete the SPA run.



- 2 The End Prep Worklist Execution dialog opens. Choose whether to print.
  - If a printer is installed, click **Print**.
  - Otherwise, click Close.

#### Shutting Down the Software

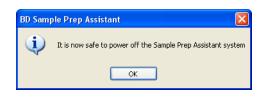
1 Click Shutdown.

The shutdown dialog opens.



2 Click OK.

The power off dialog opens.



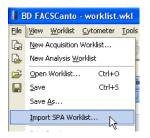
3 Click OK.

# Transfering the Worklist to a BD FACSCanto II Workstation

**NOTE** If you are transfering the worklist to  $BD^{TM}$  Worklist Manager or BD FACSDiva software, see the *BD FACS Loader User's Guide* or the *BD FACSDiva User's Guide* for more information.

**IMPORTANT** To import the worklist, all reagent and panel names must exactly match those used in BD FACSCanto clinical software. Sample information must be imported into a new, empty worklist. You cannot add imported information to a worklist that is already started.

- **1** Copy the saved worklist, *Multitest Training*, to a portable USB device.
- **2** Plug the USB device into the BD FACSCanto II workstation.
- **3** Start BD FACSCanto clinical software.
- 4 Select File > Import SPA Worklist.



- **5** Navigate to your USB device and select *Multitest Training*.
- 6 Click Open.

The SPA worklist is imported into the BD FACSCanto clinical software.

ľ	Work	Vorklist Levey-Jennings										
		Demographics			Panel Information			Acquisition				
	#	Name 🔄	r ID 💌	Case Number 🛛 💌	Panel	WBC	Lymph	Lymphs (	Carousel	Position	Status 💌	FCS File
Þ	001	(	Control		6 Color TBNK				1	1 - 1	Ready To Run	
	002		Patient 1		6 Color TBNK				1	2 - 2	Ready To Run	
	003		Patient 2		6 Color TBNK				1	3 - 3	Ready To Run	
	004		Patient 3		6 Color TBNK				1	4 - 4	Ready To Run	
*												

7 Click P.

**NOTE** In order to complete steps 7 and 8 in the tutorial, you must turn on your cytometer and complete fluidics startup.

**8** After being prompted to save the worklist, you will encounter the following dialog.

SPA Unique Carousel ID
Please enter or scan the Unique Carousel ID on the carousel you are about to run
Expected Unique Carousel ID: Training
Unique Carousel ID;
Please enter the unique ID from the carousel.
Cancel Continue

- **a** Enter *Training* in the **Unique Carousel ID** field.
- **b** Click **Cancel**. If you were continuing with the run, then you would click **Continue**.
- **9** Select File > Exit to close the software.

# **Tutorial 2**

## **Using Custom Panels with the SPA III**

After completing this tutorial, you will be able to:

- Create a custom panel.
- Create a custom reagent rack.
- Create and run a worklist using a custom panel.
- Import a panel into BD FACSDiva software.

**NOTE** All reagent volumes, lyse volumes, and incubation times in this tutorial are for training purposes only.

### **Before You Begin**

#### **Tutorial Requirements**

Use SPA software and BD FACSDiva software to perform this tutorial.

Ensure that you have access to a user account with administrative privileges (only necessary for SPA software).

**NOTE** This tutorial is performed without an instrument. If an instrument is connected to your workstation, ensure that it is turned off before you start SPA software.

- **1** If necessary, start SPA software.
- **2** Select your user name from the menu and type your password.
- **3** Click OK.

The Prep Worklist window opens.

**NOTE** If you are continuing from a previous software session, ensure that your worklist is clear.

To start a new worklist, select File > New Prep Worklist.

## **Creating a Custom Panel Using SPA Software**

SPA software allows you to create your own customized panels and modify preprogrammed variables for each tube in your panel. You can also customize reagent and lyse volumes, as well as reagent and lyse incubation times. In addition, custom reagents can be added to the Reagent List.

In this tutorial, you will create a three-tube custom panel that utilizes multiple reagent racks.

#### **Panel Setup**

#### **Creating a Category**

1 From the main menu in the Prep Worklist window, select Setup > Panel Editor.

The Panel Editor is displayed.

Panel Editor	$\overline{\mathbf{X}}$
Panels  BD MultiTEST  D D TriTEST  D D Accuracy & Precision	Panel BD MultiTEST/BD TriTEST/ Absolute Count Panel Other Panel
	Reagent Incubate (min.)  Lyse Incubate (min.)  New Category
Print Panel	New Panel New Tube Edit Tube OK Cancel

**2** Click New Category.

A *New Category* folder is listed below the existing panel category folders in the browser pane on the left.

- **3** Enter a name for the new panel category.
  - a Right-click the new category and select Rename.
  - **b** Change the name of the new category to *Tutorial Panels*.

**NOTE** User-defined category, panel, and tube names are displayed in blue. Preprogrammed (non-editable) categories, panels, and tubes are black.

**4** Verify that the *Tutorial Panels* folder is still selected and click **New Panel**.

A new panel, Untitled-Panel, is listed in the browser pane.

P	Panel Editor
	🖃 🔜 Panels
	🖮 🧰 BD MultiTEST
	🖻 🧰 BD TriTEST
	🗄 🚞 BD Accuracy & Precision
	😑 🧰 Tutorial Panels
	Untitled-Panel

- **5** Change the name of the new panel to *Practice*.
- **6** Select the **Other Panel** button.

Panel Editor	
Panels  DD MultiTEST  DD Accuracy & Precision  Tutorial Panels  Practice	Panel Practice BD MultiTEST/BD TriTEST/ Absolute Count Panel Other Panel Reagent Incubate (min.) 15 Lyse Incubate (min.) 15 New Category New Panel New Tube Edit Tube
Print Panel	OK Cancel

#### **Creating Secondary Tubes for the New Panel**

#### Creating and Modifying Tube 1

- **1** In the Panel Editor, click to select *Practice*.
- **2** Click New Tube.

A new tube, Untitled tube, is listed in the browser pane.

Panel Editor
🖃 🛄 Panels
🚊 🧰 BD MultiTEST
🖶 🧰 BD TriTEST
🗄 🦲 BD Accuracy & Precision
🖮 🧰 Tutorial Panels
Practice
Untitled-Tube

- **3** Change the name of the new tube to *Tube 1*.
- **4** Verify that *Tube 1* is still selected and click **Edit Tube**.

The Tube Editor is displayed.

Tube Editor	
Practice	
Tube 1	
Sample Volume (µl) 50	\$
Reagent	
Volume (μl) 0 <u>Reagent List</u>	×.
Lyse Volume (µl) 450	
BD TruCOUNT Controls	Type Ctrl L
Property	Value
Sample Lyse TruCDUNT Tube TruCDUNT Controls Control Type	50 µl 450 µl Not Selected Not Selected NA
🔲 Blank Tube	Apply Close

- **5** Click the up or down arrows to change Tube Editor settings to the following:
  - Sample Volume (µL): 100
  - Lyse Volume (µL): 0
- 6 Click the Reagent List link.

The Reagent List is displayed. The Reagent List contains all of the BD preprogrammed reagents and any custom reagents previously created. New reagents can be added to this list, and they will be available for later use. Any reagent name on this list can be dragged to the **Reagent** field in the Tube Editor.

Reagent List - Drag the name into an Editor	X
CD3/CD8/CD45/CD4	~
CD3/CD16+CD56/CD45/CD19	
CD3/CD16+56/CD45/CD4/CD19/CD8	
CD4/CD8/CD3	
CD3/CD4/CD45	
CD3/CD8/CD45	
CD3/CD19/CD45	
CD3/CD16+CD56/CD45	
CD14/CD64	
CD15/CD117	
CD15/CD34	
CD7/CD33	
AntiHLA-DR/CD13	
AntiHLA-DR/CD34 CD4/CD25/CD3	
CD8/CD56/CD3	
CD38/CD56/CD19	
CD103/CD22/CD20	
CD5/CD10/CD10	~
Enter a custom reagent name.	
Add	

- 7 Add a new reagent to the Reagent List.
  - a Click in the Enter a Custom Reagent Name field.
  - **b** Type *Reagent* 1.
  - c Click Add.

Reagent 1 is now added to the Reagent List.

- **8** Click and drag Reagent 1 from the Reagent List to the **Reagent** field in the Tube Editor.
- **9** Repeat steps 7 and 8 to add Reagents 2–9 to the **Reagent** field in the Tube Editor.
- **10** Close the Reagent List.

**11** Select *Reagent 1* in the **Reagent** field of the Tube Editor and change the **Volume** (µL) to 15.

Tu	be Editor			×
	Practice			
	Tube 1			
	Sample Volume (µl)	100	<b>\$</b>	
	Reagent			
	Reagent 1 Reagent 2 Reagent 3 Reagent 4 Reagent 5 Reagent 5			
•	Volume (μl)	15		
	Reagent List		.0	

- **12** Select each reagent and change its volume to *15*.
- **13** In the Tube Editor, click **Apply** to apply the current settings to Tube 1.

Tube Editor		×
Practice		
Tube 1		
Sample Volume (µl) 100	\$	
Reagent 4 Reagent 5 Reagent 6 Reagent 7 Reagent 8 Reagent 9		
Volume (μl) 15	\$	
Reagent List		
Lyse Volume (µl) 0	\$	
Controls	Type Ctrl L	
Property	Value 🔼	
Sample Reagent 1 Reagent 2	100 µl 15 µl	
Reagent 3 Reagent 4 Reagent 5 Reagent 6	15 µl 15 µl 15 µl 15 µl	
🔲 Blank Tube	Apply Close	

**14** In the Tube Editor, click Close.

#### Creating additional secondary tubes

You will create two additional secondary tubes for a total of three tubes in the *Practice* panel.

#### **Creating Tube 2**

**1** Add a new tube to the *Practice* panel and name it *Tube* 2.

Panel Editor
Panels  Panels  BD MultiTEST  BD Accuracy & Precision  Tutorial Panels  Practice  Tube 1  Tube 1  Tube 2

- **2** Click Edit Tube to edit *Tube 2* settings.
  - **TIP** Double-clicking a tube also opens the Tube Editor.
- **3** Change Tube Editor settings to the following:
  - Sample Volume (µL): 100
  - Lyse Volume (µL): 0
- **4** Click the **Reagent List** link.
- **5** Add Reagents 10–18 to the Reagent List.
- **6** Drag the reagents to the **Reagent** field in the Tube Editor.
- 7 In the Reagent field in the Tube Editor, change the reagent volumes to 15.

**8** Click **Apply** to apply the current settings to Tube 2.

Practice				
Tube 2				
ample Volume (μl)	100	\$		
Reagent				
Reagent 13				~
Reagent 14				
Reagent 15				
Reagent 16 Reagent 17				
Reagent 18				<b>×</b>
Volume (µl)	15	-		
Reagent List				
.yse Volume (µl)	0	\$		
	-	¥		
BD TruCOUNT Tu	be			
Controls				
BD TruCOUNT	Controls	Туре	Ctrl L	~
	001111010			
Property			Value	<u> </u>
Sample			100 µl	
Sample Reagent 10			100 µl 15 µl	=
Sample Reagent 10 Reagent 11			100 μl 15 μl 15 μl	
Sample Reagent 10 Reagent 11 Reagent 12			100 µl 15 µl 15 µl 15 µl	=
Sample Reagent 10 Reagent 11			100 μl 15 μl 15 μl	
Sample Reagent 10 Reagent 11 Reagent 12 Reagent 13 Reagent 14 Reagent 15			100 µl 15 µl 15 µl 15 µl 15 µl 15 µl 15 µl	
Sample Reagent 10 Reagent 11 Reagent 12 Reagent 13 Reagent 14			100 µl 15 µl 15 µl 15 µl 15 µl 15 µl	

**9** In the Tube Editor, click **Close**.

Both the Tube Editor and the Reagent List close.

#### **Creating Tube 3**

In this section, you will create a new tube by making a copy of the previous tube and then editing its contents.

- **1** Create a copy of Tube 2:
  - **a** Right-click *Tube 2* in the Panel Editor, then select **Copy** from the menu.
  - **b** Right-click again and select **Paste** from the menu.

A new tube, Copy of Tube 2, is added to the Practice panel tubes.

Panel Editor	
Panels	riTEST ccuracy & Precision al Panels

- **2** Change the name of the new tube to *Tube 3*.
- **3** In the Panel Editor, click Edit Tube.
- **4** Verify the following Tube Editor settings:
  - Sample Volume (µL): 100
  - Lyse Volume (µL): 0
- **5** Select each of the reagents in the Tube Editor reagent field and press the Delete key to delete these reagents from the reagent field.
- **6** Click the **Reagent List** link.
- 7 Add Reagents 19–27 to the Reagent List.
- **8** Drag the reagents to the **Reagent** field in the Tube Editor.
- **9** Change the reagent volumes to *15*.

**10** Click **Apply** to apply the current settings to Tube 3.

Practice				
Tube 3				
Tube 3				
Sample Volume (µl)	100			
Reagent				
Reagent 22 Reagent 23 Reagent 24 Reagent 25 Reagent 26				
Reagent 27				<b>~</b>
Volume (µl)	15	\$		
Reagent List				
.yse Volume (μl)	0	\$		
	-	Y		
DO T COUNTY I				
BD TruCOUNT Tub	De			
BD TruCOUNT Tub	De			
_		Туре	Ctrl L	~
Controls		Туре	Ctrl L Value	× •
Controls BD TruCOUNT Property Sample		Туре	Value 100 µl	<ul> <li></li> </ul>
Controls BD TruCOUNT Property Sample Reagent 19		Туре	Value 100 μl 15 μl	
Controls BD TruCOUNT Property Sample Reagent 19 Reagent 20		Туре	Value 100 μl 15 μl 15 μl	
Controls BD TruCOUNT Property Sample Reagent 19		Туре	Value 100 μl 15 μl	
Controls BD TruCOUNT Property Sample Reagent 19 Reagent 20 Reagent 21		Туре	Value 100 μl 15 μl 15 μl 15 μl	
Controls BD TruCOUNT Property Sample Reagent 19 Reagent 20 Reagent 21 Reagent 23 Reagent 23 Reagent 23 Reagent 24		Туре	Value 100 µl 15 µl 15 µl 15 µl 15 µl 15 µl	
Controls BD TruCOUNT Sample Reagent 19 Reagent 20 Reagent 22 Reagent 23		Туре	Value 100 μl 15 μl 15 μl 15 μl 15 μl 15 μl	
Controls BD TruCOUNT Property Sample Reagent 19 Reagent 20 Reagent 21 Reagent 23 Reagent 23 Reagent 24	Controls	Туре	Value 100 µl 15 µl 15 µl 15 µl 15 µl 15 µl	~
Controls BD TruCOUNT Property Sample Reagent 19 Reagent 20 Reagent 21 Reagent 23 Reagent 23 Reagent 24	Controls	Туре	Value 100 µl 15 µl 15 µl 15 µl 15 µl 15 µl	~

**11** In the Tube Editor, click **Close**.

Both the Tube Editor and the Reagent List close.

#### **Modifying Incubation Settings**

- **1** In the Panel Editor, select the *Practice* panel.
- **2** Set the **Reagent Incubate** time to 5 minutes.
- **3** Set the Lyse Incubate time to 0 minutes.

Panel Editor	X
Panels  BD MultiTEST  BD Accuracy & Precision  Tutorial Panels  Tutorial Panels  Tutor 1  Tube 2  Tube 3	Panel Practice BD MultiTEST/BD TriTEST/ Absolute Count Panel O Other Panel Reagent Incubate (min.) 5 Use Incubate (min.) 0 New Category New Panel New Tube Edit Tube
Print Panel	OK Cancel

**4** Click **OK** to close the Panel Editor.

### **Creating a Custom Reagent Rack**

In this section, you will create a custom reagent rack that includes the reagents needed to stain the tubes in the *Practice* panel.

**1** Select Setup > Reagent Rack Editor.

The Reagent Rack Editor is displayed.

Reagent Rack Editor	
	Rack: 1 of 1
Reagent Racks     BD Reagent Racks     Custom Reagent Racks	R25
New Category New Rack Edit Rack	Previous Next

- **2** Click the *Custom Reagent Racks* folder to select it.
- **3** Click New Rack.

A new rack, New Rack, is added to the Custom Reagent Racks folder.

**4** Change the name of the new rack to *Training* 27.

**5** Verify that the *Training* 27 reagent rack is selected and click Edit Rack.

The Rack Map Editor is displayed.

Rack Map Editor				×
Training 27			Rack: 1 of 1	
Reagent  BD TruCOUNT Controls  Ctrl L Ctrl M Ctrl H	Position	Rack		Ð (3) (3) (3) (3) (3) (3) (3)
Reagent List	Vext 4	Add Rack	Remove Rack	
Print		OK	Cance	el

- **6** Click the **Reagent List** link.
- 7 Drag *Reagent 1* to the **Reagent** field in the Rack Map Editor.
- **8** In the Rack Map Editor, click *R1* to select it as the location for the *Reagent 1* reagent vial.

**TIP** Moving the cursor over a highlighted reagent vial position displays the reagent name associated with that position.

Rack Map Editor			X
Training 27			Rack: 1 of 1
Reagent	Position	Rack	(R25)
Reagent 1	R1	1	
			R17 R9 R17
			Reagent 1 R18
			R3 R11 R19

**9** Repeat steps 7 and 8 for Reagents 2–18. Your completed Rack 1 will look like the following figure.

Fraining 27			Rack: 1 of 1
Reagent	Position	Rack 🔨	(R25)
Reagent 4	R4	1	
Reagent 5	R5	1	
Reagent 6	R6	1	R1 R9 R17
Reagent 7	R7	1	R2 R10 R18
Reagent 8	R8	1	
Reagent 9	R9	1	(R3) (R11) (R19)
Reagent 10	R10	1	
Reagent 11	R11	1	R4 R12 R20
Reagent 12	R12	1 🗏	R5 R13 R21
Reagent 13	R13	1	
Reagent 14	B14	1	R6 R14 R22
Reagent 15	R15	1	
Reagent 16	R16	1	(R7) (R15) (R23)
Reagent 17 Reagent 18	B17 B18	1	i a a a
neagent to	nio		R8 R16 R24
<			0 0 0
BD TruCOUNT Controls			
Ctrl L 🔄 Ctrl M	] Ctrl H		
∠ Multi-rack Fur	nctions		
Reagent List Previous	Next	Add Rack	Remove Rack

10 Click Add Rack.

A new reagent rack is added.

**11** Click Next.

Reagents can now be positioned in Rack 2.

**12** Drag reagents 19–27 from the Reagent List to the Rack Map Editor and assign them to positions R1–R9 in the Reagent Rack.

1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

**13** In the Rack Map Editor, click **OK**.

Both the Rack Map Editor and the Reagent List close.

**14** Click **OK** in the Reagent Rack Editor.

The Reagent Rack Editor closes.

#### Using a Custom Panel in a Worklist

In this section, you will create and run a worklist using the panel you just created.

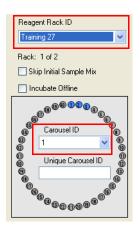
**1** Ensure that you have a blank worklist open.

If necessary, select File > New Prep Worklist to open a blank worklist.

- **2** Type *Donor* 1 in the **Sample ID** field.
- **3** Verify that *BD Vacutainer* is selected as the **Primary Tube Type**.
- **4** Select *Practice* from the **Panel Name** menu.

Sample Name         Sample ID         Case Number         Primary Tube Type         Primary Rack Position         Panel Name         Carousel Pos           Donor 1         BD Vacutainer         1         Practice         1 - 3	Prep V	Worklist 1						
		Sample Marea	Sample ID	Coop Number	Primary Tuba Tupa	Primary Paals Position	Panel Name	Corougal Position
P Donor Do Vacutainer i Pracice 1-3		Sample Name		Case Number		Filling nack Fosition		
*	-		Donori		DD vacutainei		Flactice	1.3

- **5** Select *Training* 27 from the **Reagent Rack ID** menu.
- **6** Select *1* from the Carousel ID menu.

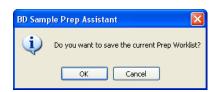


#### 7 Click Run.

A verification dialog opens. The dialog requests that key requirements are verified. It also specifies the volume of the reagents needed for the run.

BD Sample Prep Assistant
Please make sure that the Open Tube Port is attached to the Reagent Rack and the Reagent Racks contain at least: 27 µl of Reagent 13 27 µl of Reagent 10 27 µl of Reagent 10 27 µl of Reagent 9 27 µl of Reagent 9 27 µl of Reagent 25 27 µl of Reagent 25 27 µl of Reagent 26 27 µl of Reagent 26 27 µl of Reagent 27 27 µl of Reagent 27 27 µl of Reagent 21 27 µl of Reagent 21 27 µl of Reagent 21 27 µl of Reagent 19 27 µl of Reagent 11 27 µl of Reagent 12 27 µl of Reagent 1 27 µl
Please remove the caps from the reagent vials and open tubes.
Make sure that 500 $\mu l$ of Antifoam A Concentrate was added to the waste tank.
Continue?
OK Cancel

- **8** Complete the verifications, then click **OK**.
- **9** Click **OK** again to save the worklist.



Choose a location to save the worklist and name it Custom Panel Practice.

**10** After the sample has been dispensed, you will be prompted to place the first reagent rack in the intrument.

BD Samp	ole Prep Assistant 🛛 🚺	<
8	Please insert Reagent Rack 1 and make sure that the Reagent 1 Reagent 1 Reagent 2 Reagent 3 Reagent 4 Reagent 5 Reagent 5 Reagent 6 Reagent 7 Reagent 7 Reagent 8 Reagent 9 Reagent 10 Reagent 11 Reagent 11 Reagent 11 Reagent 13 Reagent 14 Reagent 15 Reagent 16 Reagent 16 Reagent 16 Reagent 17 Reagent 16 Reagent 17 Reagent 18 Reagent 18 Reagent 18 Reagent 18 Reagent 18 Reagent 18 Reagent 18	

- 11 Click OK.
- **12** After all of the reagents from Reagent Rack 1 have been dispensed, you will be prompted to place the second reagent rack in the instrument.

BD Sam	ple Prep Assistant 🛛 🔀
8	Please insert Reagent Rack 2 and make sure that the Reagent Rack contains these Reagents: Reagent 19 Reagent 20 Reagent 21 Reagent 22 Reagent 23 Reagent 24 Reagent 25 Reagent 26 Reagent 26
	Please remove the caps from the reagent vials

13 Click OK.

The run continues until completion.

- **14** When the worklist is complete, the **End Prep Worklist Execution** dialog opens. Choose whether to print.
  - If a printer is installed, click **Print**.
  - Otherwise, click Close.

#### Shutting Down the Software

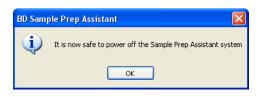
1 Click Shutdown.

The shutdown dialog opens.



2 Click OK.

The power off dialog opens.



**3** Click **OK**.

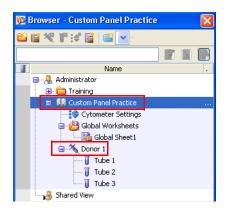
### Importing a Custom Panel into BD FACSDiva Software

**NOTE** If you are transfering the worklist to BD Worklist Manager software, see the *BD FACS Loader User's Guide* for more information.

Prior to importing a SPA worklist into BD FACSDiva software, you must create a panel template (specimen and tubes) identical to the panel you created in the SPA software. For information on how to create panel templates, see the *BD FACSDiva Software User's Guide*.

- **1** Copy the saved worklist, *Custom Panel Practice*, to a portable USB device.
- **2** Plug the USB device into the BD FACSCanto II workstation.
- **3** Start BD FACSDiva software.
- 4 Select File > Import > Worklist.
- **5** Navigate to the saved worklist, then click **Import**.

In the browser, a new experiment will be created containing your SPA worklist.



When a SPA worklist is imported into BD FACSDiva software, the worklist name becomes the experiment name and the sample ID becomes the specimen name.

**NOTE** If you have not created the *Practice* panel template in BD FACSDiva software, you will receive an error message.

💽 Erro	r
8	Cannot find Panel Template "Practice"
	ОК

**6** Select File > Quit to close the software.