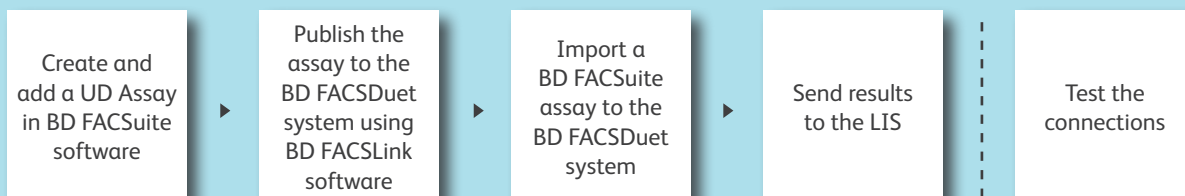# Sending Results to an LIS Using BD FACSLink™ Software with BD FACSuite™ and BD FACSDuet™ Software
Quick Reference Guide

This quick reference guide (QRG) contains instructions for sending results to a laboratory information system (LIS) using BD FACSLink™ software embedded within BD FACSuite™ software with the BD FACSDuet Sample Preparation System. BD FACSLink software provides an interface to an LIS. It is pre-installed and configured for you either on your server or on a small component that is connected by an Ethernet cable to both the BD FACSDuet™ computer and the computer on which BD FACSuite™ software is installed.

Workflow Overview

| Create and add a UD Assay in BD FACSuite software | ▶ | Publish the assay to the BD FACSDuet system using BD FACSLink software | ▶ | Import a BD FACSuite assay to the BD FACSDuet system | ▶ | Send results to the LIS | | Test the connections |

Create and add a user-defined (UD) assay

To use BD FACSLink in BD FACSuite software, you must create an assay with the following characteristics:

– Contains a Statistics View with the Include in Auto-Export checkbox selected in the Statistics View Properties dialog.
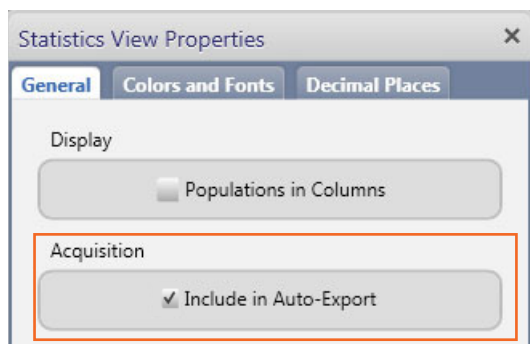
– The Automatically export results checkbox in the Auto Export Options dialog is selected.
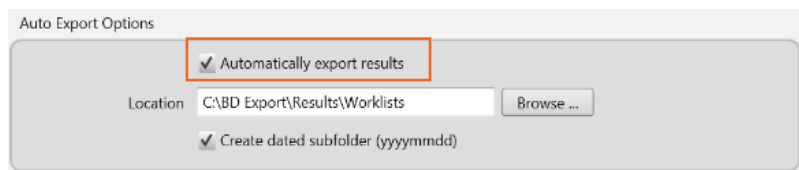
– Multiple Tube Statistics is selected on your worksheet.
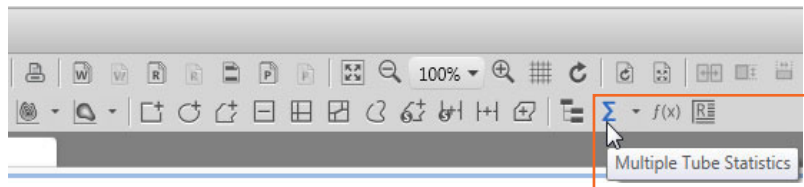
– Contains LIS Assay names and Result names.
– Is a shared assay.

Add the UD assay

1 Select the **Library** icon.

2 Expand **Assays**, select **User-Defined**, then select your assay.

3 Select the **Send to LIS** tab and click **Edit**.

4 Enter a **BD FACSLink Assay Name** and click **Send**.
  – Only letters, numbers and underscores are allowed.

5 Check the corresponding Statistics box(es) that you would like to import to your LIS.

6 Enter the required names in the **BD FACSLink Result Name** column.

A confirmation dialog will be displayed.

Publish the UD FACSuite assay to FACSDuet software

When you have a UD assay in BD FACSuite, publish the assay to BD FACSDuet software to allow for a preparation method to be added.

In BD FACSuite software you must create an assay with the following characteristics:

– Contains an LIS assay name and result name.

– Is a shared assay.

1 Click the **Library** icon to go to your library.

2 Expand **Assays**, select **User-Defined**, then select your assay.

3 Right-click on an assay name and select **FACSDuet Publish**.

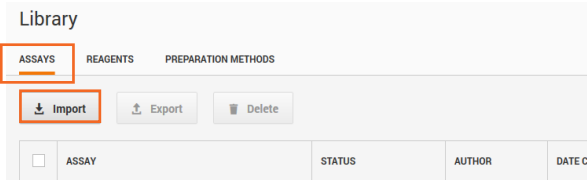**Note:** A message will appear only if the assay cannot be published.

Import the UD FACSuite assay to FACSDuet software

After you have published an UD FACSuite assay to BD FACSDuet software, you must also import the assay.
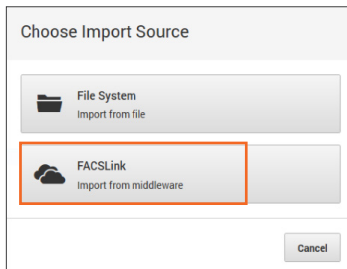
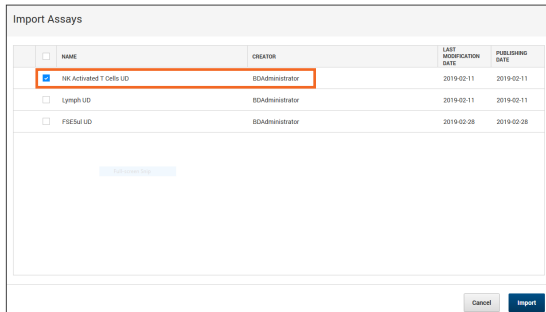**1** In BD FACSDuet software, select the **Library** icon.

2 Under the Assays tab, tap **Import**.

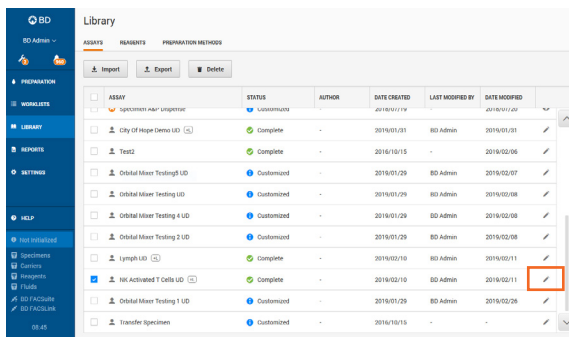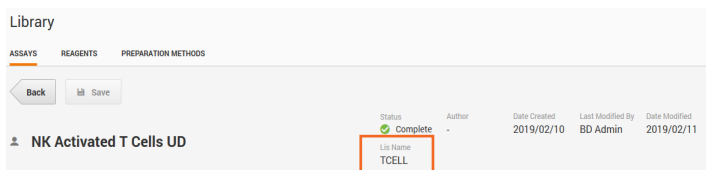**3** A dialog will appear. Click **FACSLink/Import** from middleware.

4 A dialog will appear. Select the assay you want to import.

**5** Select the assay you imported, then tap the **Edit** icon and continue creating the assay.

6 Ensure that each tube has the appropriate preparation method assigned. Select a tube and tap **Options > Choose Method > Apply**. When the assay is complete, tap **Save**.

Send results to the LIS

1. After acquisition, analyze the entry and mark the entry **Approved** in either the **Entry Details** panel or the **Worklist Entries** panel. The results are automatically sent to the LIS upon approval of an entry.
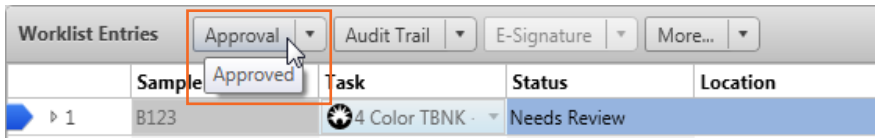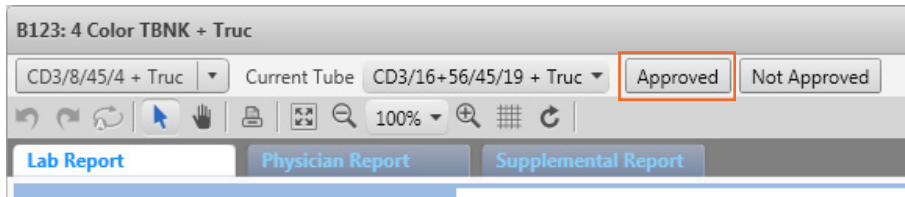
2. Select **Tools > BD FACSLink Test Results History** to view information about when the results for all worklists were transferred.
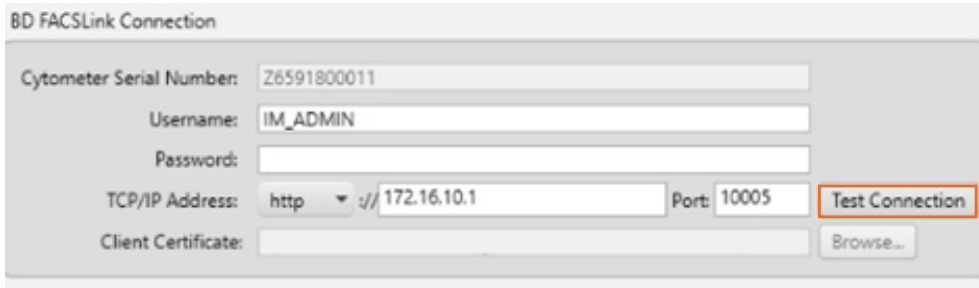
Status	Worklist Name	Sample ID	Task Name	Approved Time	Delivered Time
Sent	Worklist_001	B123	3/16+56/45/19 + Tr	10/21/2016 11:51:2:	10/21/2016 11:51:23 AM
Sent	Worklist_001	C123	3/16+56/45/19 + Tr	10/21/2016 11:51:2:	10/21/2016 11:51:22 AM
Sent	Worklist_001	B123	4 Color TBNK + Truc	10/21/2016 11:51:1!	10/21/2016 11:51:20 AM
Sent	Worklist_001	B123	4 Color TBNK + Truc	10/21/2016 11:46:3(	10/21/2016 11:46:31 AM
Sent	Worklist_002	123	6 Color TBNK + Truc	09/13/2016 12:29:5:	09/13/2016 12:29:54 PM

Test the connections

Test the connection to BD FACSLink software

1 Start BD FACSuite Clinical software.

2 Select **Tools > Preferences**, then select the **Worklist** tab.

3 Verify the following information, then click **Test Connection**.

BD FACSLink Connection

|	
Cytometer Serial Number:	Z6591800011
Username:	IM_ADMIN
Password:	
TCP/IP Address:	http ▾ :// 172.16.10.1 Port: 10005 Test Connection
Client Certificate:	Browse...

Note: Only users with Administrator privileges can change connection settings.

**4** Click **OK**.

Check the Troubleshooting table at the end of this QRG for resolving connection problems.

Test Connection ✕

✅ Connection successful.

OK
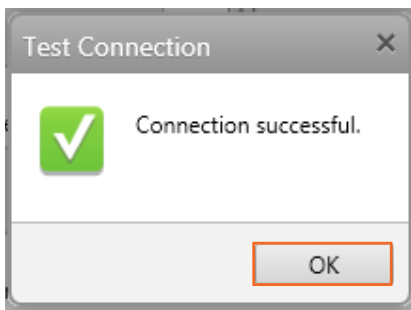
System Status

| Cytometer	Universal Loader	Workstation	BD FACSLink
BD FACSLyric (SN:12345)	Installed	13B1KC2	
✅ Connected			✅ Connected

Test the connection to BD FACSDuet software

1   Start BD FACSDuet software.

2   Select **Settings > System**.

3   Verify the following information, then tap **Test Connection**.
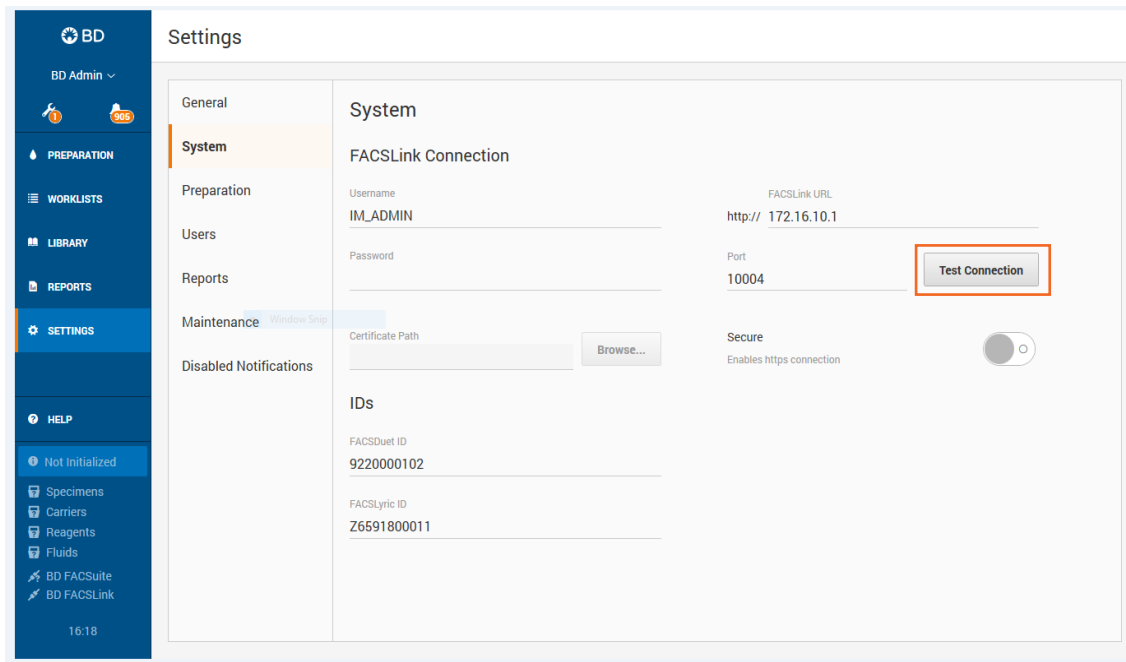
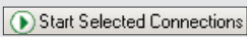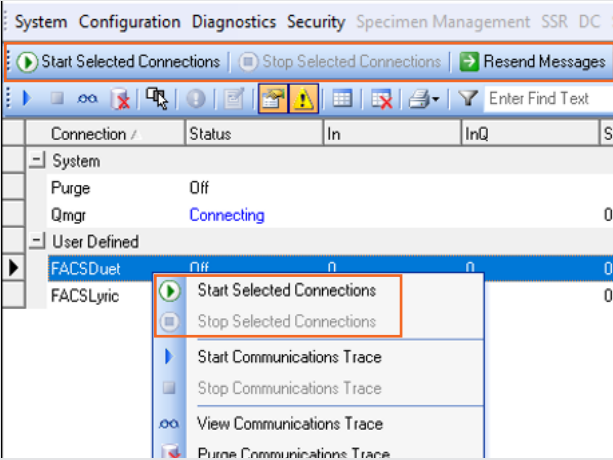**Note:** Only users with Administrator privileges can change connection settings.

Note: Consult the Troubleshooting table for help with resolving connection problems.
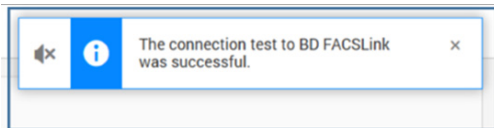
Troubleshooting Connection Issues

As a workaround until you resolve a connection issue with BD FACSLink software, you can export your worklists and import them into BD FACSuite software. See Exporting Worklists in the BD FACSDuet user guide.

Note: Only users with Administrator privileges can change connection settings.

Observation	Possible causes	Recommended solutions
Unable to send orders down or results up to the LIS	Connection error	1. Log into Data Innovations Instrument Manager™ as an Administrator. 2. Select **System > Status.** 3. Check if the Status column shows **Off** for either FACSDuet, FACSLyric, or both. If the Status is: **Off** → Start Selected Connections If the **Status** shows **Connecting** and then turns off, read the error message and select either **Start Selected Connections, Stop Selected Connections,** or **Resend Messages.**
BD FACSLink software is not connected	If BD FACSLink software connects through an Ethernet cable, the cable might be disconnected.	• Check the Ethernet cable connection on the back of the BD FACSDuet computer and on the BD FACSLink computer. • Check the Ethernet cable connection on the BD FACSLyric computer and on the BD FACSLink computer.
	The BD FACSLink connection settings are invalid.	After the BD FACSDuet system is installed, it should not be necessary to change the BD FACSLink connection settings. If you suspect that the connection settings need to be changed, contact BD Technical Support. In preparation, do the following steps: 1. With Administrator privileges, tap **Settings > System** and check the connection settings. 2. Ensure that there are no obvious issues that you can easily correct, such as empty fields or wrong instrument IDs. 3. Make a note of the settings so that you can provide this information to BD Technical Support.

Becton, Dickinson and Company, BD Biosciences, 2350 Qume Drive, San Jose, CA 95131 USA

bdbiosciences.com