This job aid contains instructions for how to perform a data backup and restore of user data using the BD FACSChorus™ Software Backup and Restore utility. See the Maintenance section in the BD FACSMelody™ Cell Sorter User’s Guide for additional information.

This utility allows you to backup and restore your database, including BD FACSChorus™ Software accounts, experiments, recordings, instrument configuration files, log files, database, CST reports, and CSV files, which can later be restored to the same version of the software.

**Note:** Data can only be backed up and restored with the same version of BD FACSChorus™ Software. BD is not responsible for the loss of any data.

### Before you begin

- Make sure BD FACSChorus™ Software is closed, and the instrument is powered off.
- **Note:** Do not modify or delete the contents of the backup folders, as this will invalidate the folder and prevent the backup from being successfully restored. You can use any backup set to restore the database and FCS files. When you restore, you erase any new data created since the backup was made.

### Creating a new backup set

**Note:** During the backup process, a backup folder containing accounts, experiments, recordings, instrument configuration files, log files, database, CST reports, and CSV files will be created. It is recommended that backup folders are first saved to the local workstation, then copied to an external storage device.

1. Start the BD FACSChorus™ Software Backup and Restore utility from the icon on the desktop.
2. Click **BACKUP** to begin backing up data from BD FACSChorus™ Software.
Creating a new backup set, continued

3. After confirming the backup storage location, click **BACKUP**.

   **Note:** BD recommends leaving the Backup storage location set to the default location of C:\Chorus_Backups on the local workstation. After the backup process is complete, the backup folder can be retrieved from this location.

When the backup process has successfully completed, a Backup Completed message will be displayed. The backup folder is named using the following format:

**SerialNumber_YYYYMMDD_HHmmSS**

**Note:** After the backup has completed, we recommend that you also copy your backup to an external storage device.

4. Click **OK**.
Restoring a backup set

**Note:** You must restore data from the same location you used during the backup process. The restore process will overwrite all previous backed up data from the selected backup folder. BD is not responsible for the loss of any data.

**Note:** Before starting the restore process, make sure that BD FACSChorus™ Software is closed.

1. Start the BD FACSChorus™ Software Backup and Restore utility from the icon on the desktop.

2. Click **RESTORE**.

3. Click **SELECT A BACKUP FOLDER**.

4. Navigate to the backup folder that you would like to restore, then click **SELECT FOLDER**.
   **Note:** We recommend that you restore from a folder that is on the local workstation. If the backup was copied to an external drive, copy the folder back to the workstation before completing the restore process. By default, backup are saved to and restored from C:\Chorus_Backups.

5. Click **RESTORE** to begin the restore process.

If the estimated space required is greater than the amount available, the system prompts you to free up additional space and try again.

**Note:** This process will remove any previous backup files from this location.
**Restoring a backup set, continued**

When the restore process has been successfully completed, a **Restore Completed** message is displayed.

6. Click **OK** to return to the main page or close the utility.

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**Maintaining data integrity**

The following table shows which changes are supported as well as changes that are not supported.

<table>
<thead>
<tr>
<th>Action</th>
<th>Allowed</th>
<th>Not allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Change the name of the backup folder</td>
<td>Change the name of any folders or files inside the backup folder</td>
</tr>
<tr>
<td></td>
<td>Move backup files between the local workstation and other external sources</td>
<td>Change or delete the contents of the files contained in the backup folder</td>
</tr>
</tbody>
</table>
## Troubleshooting

<table>
<thead>
<tr>
<th>Observation or error message</th>
<th>Possible cause</th>
<th>Recommended solution</th>
</tr>
</thead>
</table>
| **Invalid Backup Folder Selected for Restore: The backup folder selected is invalid.**       | • The backup folder is no longer in the location specified within the Backup and Restore application.  
• The backup folder has been deleted.  
• The backup folder contents have been modified. | Verify that the folder is still in file path selected in the utility. Do not modify the contents of any backup folder. If content has been modified, the folder will not be able to be restored. |
| **Incompatible Backup Folder: The selected backup folder is not compatible with the current BD FACSChorus version on this workstation.** | The backup folder was created from a different version of BD FACSChorus™ Software. | You will not be able to restore a backup saved from a previous version of BD FACSChorus™ Software, (for example, a backup created using version 2.0 cannot be restored to version 3.0). |
| **There is not enough disk space - Free up some disk space.**                               | There is not enough space on the disk to perform the restore.                   | Remove some files from the local workstation to create enough space to restore the backup folder. |
| **FACSChorus is Running, please shut down FACSChorus before attempting a backup or restore.** | The software is open.                                                           | Close BD FACSChorus™ Software and turn off the instrument before using the Backup and Restore Utility. |
| **Backup Failed: Format the storage device as NTFS or use an alternative storage location.** | An external device with FAT32 format is the backup storage location.             | The backup folder is too large to save on the external device with FAT32 format.  
Reformat the device as NTFS or use an alternative storage location.  
We recommend that backup folders are saved to the local workstation. |
| **Backup and Restore utility will not open.**                                                | Another instance of the Backup and Restore utility is already running.           | Check if the Backup and Restore utility is already running. Only one instance of the utility can be open at a time on the workstation. |
| **BD FACSChorus™ Software will not open correctly after a restore.**                        | The restore process may have been interrupted.                                 | Close BD FACSChorus™ Software and then repeat the restore process using the Backup and Restore utility. |