



# Information security guidelines

## BD Biosciences workstations

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## About this guide

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**Overview** This guide is intended to provide recommendations to customers regarding security on BD Biosciences workstations. This includes installation and setup of antivirus software and management of Microsoft® Windows® security updates and hotfixes, limited user account settings, software firewall settings, and removable media guidelines.

This guide applies to BD workstations that have BD FACSDiva™ software, BD FACSCanto™ clinical software, BD FACSTM SPA software, BD FACSMicroCount™ software, BD FACSuite™ software, or BD FACSuite™ Clinical software installed.

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**Who should read this guide** All IT system administrators of BD instrument workstations should read this guide.

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**Guide contents** This guide describes:

- Our recommendations, responsibilities, warranty, and liability regarding the installation and maintenance of virus protection software and Windows security updates and hotfixes.
- Our policy on the setup and use of virus protection software on BD workstations.
- Our policy on how often BD Biosciences reviews and releases a list of Windows security updates and hotfixes that have minimal impact on BD workstations.
- Our policy on the management of Windows limited user account settings on BD workstations.
- Our policy on the management of software firewall settings on BD workstations.
- Our guidelines on the use and management of removable media on BD workstations.

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**Where to store this guide** Store this guide near your BD workstation for reference.

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# Software policies

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## Introduction

This topic describes BD Biosciences software policies concerning responsibility, warranty, and liability. It also explains the testing of the information security guidelines using virus protection software.

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## Responsibility, warranty, and liability

BD Biosciences delivers software and workstations that are intended for running the instruments supplied by BD Biosciences. It is your responsibility to ensure that all workstations are updated with the latest Windows security updates and hotfixes. It is your responsibility to install and maintain Windows security updates and hotfixes.

BD Biosciences does not provide any warranty with respect to Windows security updates and hotfixes or their compatibility with BD Biosciences products, nor does BD Biosciences make any representation with respect to the workstation remaining virus-free after installation. BD Biosciences is not liable for any claims related to or resulting from failure to install and maintain Windows security updates and hotfixes.

BD Biosciences does not provide any warranty with respect to virus protection software or its compatibility with BD Biosciences products, nor does BD Biosciences make any representation with respect to the workstation remaining virus-free after installation. BD Biosciences is not liable for any claims related to or resulting from failure to install and maintain virus protection. It is your responsibility to ensure that all electronic files (including software and transport media) are virus-free. It is your responsibility to install and maintain up-to-date virus protection software.

We do not make recommendations for a specific brand of virus protection software.

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## Testing

The guidelines in this document are based on tests performed using Norton™ Internet Security 2010-2011 virus protection software. BD Biosciences cannot claim that future versions of Norton virus

protection software or virus protection software from other vendors will be compatible with these guidelines.

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## Virus protection software setup and operation

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**Introduction** This topic provides general guidelines for installing and configuring third-party virus protection software on BD Biosciences workstations running on a supported Microsoft Windows OS. Follow these guidelines to reduce the risk of impacting the performance and functionality of the BD software listed in [About this guide](#).

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**Installation** See the information provided by the third-party virus protection software manufacturer for specific installation and user instructions.

When installing virus protection software, select the *Typical* or *Default* installation method.

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**Setup** **After installing virus protection software, set it up as follows:**

- Enable on-access scanning of new files, software, and all removable media.
- Enable on-access scans for unwanted scripts, including Java™ scripts.
- Disable any heuristics options, such as finding unknown programs or unknown macro viruses.

- Exclude the following BD folders from on-access scanning for systems running on Windows 7.

Software	Files and folders
BD FACS SPA software v5.0 and later	C:\Program Files\BD FACS SPA Software C:\ProgramData\BD\FACS SPA C:\BD\FACS SPA
BD FACSDiva software v8.0 and later	C:\Program Files\BD FACSDiva Software C:\Program Files\Java C:\Program Files\SQL Anywhere 12 C: or D: \BDDatabase C:\ProgramData\BD\FACSDiva\ C:\ProgramData\BD\Shared\ C: or D: \BD\FACSDiva\CST\ C: or D: \BDExport

Software	Files and folders
BD FACSCanto clinical software v3.0 and later	C:\Program Files\BD FACSCanto Software C:\ProgramData\BD\FACSCanto C: or D: \BD\FACSCanto C: or D: \BDFACSCantoFCSFiles C:\Program Files\Java C:\Program Files\SQL Anywhere 12 C:\Program Files\BD FACSDiva Software\CST C:\ProgramData\BD\FACSDiva\CST C:\ProgramData\BD\Shared C: or D: \BD\FACSDiva\CST\ C: or D: \BDExport
BD FACSuite software	C:\BD Import C:\BD Export C:\ProgramData\BD
BD FACSuite Clinical software	C:\BD Import Clinical C:\BD Export Clinical C:\ProgramData\BD

- Schedule full-system scanning to include all files and folders (including BD files and folders). Schedule scanning to occur when the system is not in use.

The virus protection software's directory scan is processor-intensive and could adversely affect the performance of BD software if run simultaneously.



**Caution!** BD Biosciences is not responsible for data corruption or loss if full-system scanning occurs while BD software is running.

- Schedule automatic updates of the virus definition files during times when the instrument is not in use.

- To prevent unnecessary scanning by the on-access scanner, do not insert removable storage media or try to access information on such media while BD software is running.
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**Virus detection****If the software detects a virus:**

- Move all infected files to a quarantine folder.
  - If BD software becomes infected, reinstall it.
  - Consult your IT department about whether to delete the infected files.
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**Installing  
BD software**

- Before installing BD software, temporarily disable virus protection software.
  - Enable virus protection software after you have finished installing BD software.
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**Upgrading virus  
protection  
software**

Upgrading virus protection software might cause several changes in the configuration of the software and the exclusion list for the on-access scanner. We suggest that you verify that the recommended configuration settings and exclusion list have not been altered by the software upgrade.

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**Troubleshooting**

If you follow these guidelines, but the performance and functionality of BD software is still affected, contact your virus protection software vendor for additional software-specific guidelines.

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## Microsoft Windows update guidelines

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**Introduction** This topic describes how to manage Windows security updates and hotfixes on BD Biosciences workstations without affecting the performance or functionality of BD Biosciences software.

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**Applicable BD software** Windows security updates and hotfixes reviewed by BD are compatible with the following BD Biosciences software:

- BD FACSDiva software (v8.0 or later)
- BD FACSCanto clinical software (v3.0 or later)
- BD FACS SPA software (v5.0 or later)
- BD FACSMicroCount software (v1.0 or later)
- BD FACSuite software (v1.0 or later)
- BD FACSuite Clinical software (v1.0 or later)

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**Before you begin** Contact your company's IT system administrator for the download and installation of Windows security updates and hotfixes on workstations.



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**Installing updates and hotfixes****When installing Windows security updates or hotfixes:**

- We recommend that you turn off the automatic update feature of Windows Update on the workstation.
- BD Biosciences reviews and updates a list of the newly released Windows security updates and hotfixes from Microsoft. Only those patches that have minimal impact on BD Biosciences software are contained in this list. Patches that have a more significant impact on software performance will be excluded until we can properly support them. We recommend downloading this document on a monthly basis to ensure that you have the most current list of Windows security updates and hotfixes reviewed by BD.
- We recommend that you work with your IT system administrator to manually update your workstations based on the current BD Biosciences list of reviewed Windows security updates and hotfixes.

Only update from an official vendor site.

  - See [microsoft.com](https://microsoft.com) for the latest Windows security updates and hotfixes.
  - See [bdbiosciences.com](https://bdbiosciences.com) for the latest list of Windows security updates and hotfixes reviewed for installation on BD Biosciences workstations.
- Your IT system administrator should test and approve the Windows security updates and hotfixes and reject undesired updates as appropriate for your company.

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**Auto-Update for Java**

Do not enable Auto-Update in Java v6. When Auto-Update in Java v6 is enabled, it automatically updates Java by installing Java v7 and uninstalling Java v6, causing issues with BD FACSDiva software.

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## Microsoft Windows limited user account settings

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**Introduction** This topic describes how to manage the security permission settings for Windows limited user accounts. Your company's IT system administrator is responsible for ensuring that the Windows limited user accounts have full access permissions to the settings listed in these guidelines. Also, we state our recommendations for tasks that should not be delegated to limited user accounts.

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**Security permission settings for driver files** If the workstation is connected to a BD FACSAria™ flow cytometer, the Windows limited user accounts must have full access to the following driver files:

- C:\Windows\System32\ipl.dll
  - C:\Windows\System 32\iplw7.dll
  - C:\Windows\System 32\Cpuinf32.dll
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**Security permission setting for user groups** Windows limited user accounts must be members of the BUILTIN\Users Windows Group to run BD FACSuite software.

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**Security permission settings for folders** Windows limited user accounts must have full access to the following folders.

See the following table for systems running on Windows 7.

Software	Folders
BD FACS SPA software v5.0 and later	C:\Program Files\BD FACS SPA Software C:\ProgramData\BD\FACS SPA C:\BD\FACS SPA
BD FACSDiva software v8.0 and later	C:\Program Files\BD FACSDiva Software C:\Program Files\Java C:\Program Files\SQL Anywhere 12 C: or D: \BDDatabase C:\ProgramData\BD\FACSDiva\ C:\ProgramData\BD\Shared\ C: or D: \BD\FACSDiva\CST\ C: or D: \BDExport
BD FACSCanto clinical software v3.0 and later	C:\Program Files\BD FACSCanto Software C:\ProgramData\BD\FACSCanto C: or D: \BD\FACSCanto C: or D: \BDFACSCantoFCSFiles C:\Program Files\Java C:\Program Files\SQL Anywhere 12 C:\Program Files\BD FACSDiva Software\CST C:\ProgramData\BD\FACSDiva\CST C:\ProgramData\BD\Shared C: or D: \BD\FACSDiva\CST\ C: or D: \BDExport

Software	Folders
BD FACSMicroCount software	All folders and subfolders in the following location: C:\BD FACSMicroCount  Or the location where BD FACSMicroCount is installed.
BD FACSuite software	All folders and subfolders in the following: C:\ProgramData\BD\FACSuite
BD FACSuite Clinical software	All folders and subfolders in the following: C:\ProgramData\BD\FACSuite Clinical

### Delegation of database restore task

Limited user accounts do not have sufficient administrative rights to restore the database in BD FACSDiva software, BD FACSuite software, and BD FACSuite Clinical software. We recommend that the lab administrator or IT group perform database restore on BD Biosciences software.

Note that the initial release of BD FACSuite software has a limitation that will only allow members in the BUILTIN\Administrators Windows Group to perform a database backup with the backup utility.

## Software firewall and proxy settings

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**Introduction** This topic describes how to set the firewall exclusions and proxy settings for the workstation.

**Software firewall settings** Do not enable the software firewall on the network card that connects the workstation to the instrument.

**Network card settings for Windows 7** On the network card that connects the workstation to your network, allow access to the following applications on Windows 7.

Application	File path
Sybase Central	C:\Program Files\SQL Anywhere 12\BIN32\scjview.exe
ISQ	C:\Program Files\BD FACSDiva Software\CSTMSQ.exe
Java	C:\WINDOWS\system32\java.exe
BD FACSLink software	File and printer sharing

**TCP sockets settings** There should be no rules blocking local access to the following TCP sockets.

Application	TCP sockets
Sybase	1498, 2638

**Proxy settings** If the BD workstation is connected to an internal network, and you are using a proxy server, instrument IP requests might get directed to the proxy server. To avoid this, configure exceptions for internal instrument IP addresses.

If you do not have your proxy server or the appropriate exception configured correctly, you might not be able to access the instrument from the application.

Make sure to configure the proxy server and the exceptions in Internet Explorer.

1. Enable Bypass server proxy for local addresses.
  2. In the **Exceptions** field, enter the IP address of the internal instrument network, for example 192.168.\*.\*.
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## Removable media guidelines

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### Introduction

This topic describes BD Biosciences guidelines for the use of removable media.

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### Virus protection

Set up your virus protection software to enable on-access scanning and scheduled full-system scanning of all removable media. To prevent adverse performance of BD software, perform both the on-access scanning and scheduled full-system scanning when you are not running any BD software.

See [Virus protection software setup and operation](#) for detailed information.

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### Restricting user access

BD Biosciences workstations require the use of one or more USB security keys to function properly. You should not disable the USB ports on your BD Biosciences workstations.

If you want to restrict users from accessing removable media on BD Biosciences workstations, follow Microsoft's recommendations to prevent users from connecting to USB storage devices. Go to [support.microsoft.com](http://support.microsoft.com).

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## Regulatory information

Class 1 Laser Product.

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