VILBER

Bio-1D - Vilber
USER & SERVICE MANUAL

Thank you

Dear Customer,

On behalf of Vilber Lourmat, we would like to thank you for choosing the BIO-1D analysis software.

In order to learn the capabilities of your BIO-1D software, we kindly ask you to read this manual. This manual details how to install and to operate the hardware and the software components.

Vilber Lourmat is dedicated to your satisfaction and we will be pleased to answer any question you may have. We are also very receptive to your suggestions. Many of the new features and enhancements in this system are a direct result of conversations with our customers. Please do not hesitate to contact us to let us know what you would like to see in the next version of this system.

You can contact us at the following addresses:
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Do not hesitate to visit our website at www.vilber.com

Bio-1D

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W ARNING AND SAFETY

Please read carefully these instructions before installing and operating the BIO-1D software

Whenever you find this pictograph, be sure to refer to this Manual.
It indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.

Whenever you find this pictograph, be sure to refer to this Manual.
It indicates a UV radiation situation which, if not avoided, could result in serious injury.

WARNING

The operator should wear appropriate safety glasses or a protective mask and gloves. UV radiation can be dangerous for unprotected eyes and skin; therefore we recommend the user to wear UV protective goggles (LP-70) or face-shield (MP-80 or MP-800).

Use of the UV transilluminator acrylic protective screen does not guarantee the user protection from UV radiation. The use of protective goggles, mask, and/or gloves is strongly recommended

This product is safe to use if operated in accordance with the instruction manual. This instrument must not be modified or altered in any way. Modification or alteration of this software and associated hardware will void the manufacturer's warranty, regulatory certifications and create a potential safety hazard.

The Bio-1D is suitable for research use in laboratory only. Vilber Bio Imaging is not responsible for any injury or damage caused by the use of this instrument for purposes other than those for which it is intended, or for any modifications of the instrument not performed by Vilber Bio Imaging or by an authorized agent.

Vilber Bio Imaging is not responsible for the misinterpretation of results obtained by following the instructions in this guide. As with all scientific studies, we recommend that you repeat your experiment at least once before making any significant conclusions for presentation or publication.

The use of accessories not supplied by Vilber Bio Imaging can damage the system or create safety hazard.

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Bio-1D

I NTRODUCTION

About

Bio-1D is a sophisticated and intuitive analysis software designed for virtually any fluorescence or chemiluminescence sample.

The software combines the power of a comprehensive set of analytical tools and automatic functions in an incredibly easy to use environment. It includes 8 different analysis modules from molecular weight calculation to volume quantification, through microtitration and GFP quantification.

The analysis can be saved as a template and re-used for further analysis to facilitate routine analysis. All result tables and graphics can be printed or exported in a Windows® compatible format. The image enhancement module prepares your image for publication thanks to a large choice of filters.

Bio-1D Advanced key features

- Transform your 1D gel into 3D results

- Exclusive Next™ tutorial mode for an incredible ease of use

- Work with different kind of samples such as DNA, RNA, protein, polynucleotide, Petri dish, microtitration plates, plants and in-vivo images

- Ease your analysis by using the same template for the analysis of different images

- Use state of the art analysis algorithms

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End user license agreement

Please read carefully the following license agreement. This document is a legal agreement between you, and Vilber Bio Imaging, concerning the use of the enclosed software. This agreement constitutes the complete agreement between you and Vilber Bio Imaging.

By opening the software package, you are consenting to be bound by and are becoming a party to this agreement. If you do not agree To all of the terms of this agreement, do not open the package or use the software. Promptly return the USB keys, including the written materials, and all other equipment/containers to the dealer from whom you purchased them.

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If the Software is permanently installed on the hard disk or other storage device of a desktop or portable computer (other than a network server) and one person uses that computer more than 80% of the time, then that person may also use the Software on a 2nd computer for the purpose of viewing and post-processing images.

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INSTALLATION GUIDELINES

System requirements

The following sections detail the minimum hardware and software requirements needed for the Bio-1D Advanced software. These requirements are valid at the time of your purchase and may change with future development of our software products as well as the computers to which they interface.

Minimum requirement

Processor	Intel Core i3 with Intel chipset (i5 recommended) AMD processor and chipset are not supported.
Ram	8 Gb and above (16 recommended)
Hard disk	256 Gb and above At least 10% free disk space least in order to allow software installation and image storage.
Monitor & Video card	1600x900/ 16 million colour mode (24-bit). Upper resolutions supported. Video card with a refresh rate above 60 Hz.
Operating system	Microsoft Windows 10 and upper.
USB Port	At least two USB-A ports available.

Unpacking the Bio-1D Advanced

Please, open the Bio-1D Advanced folder carefully and verify the contents:
- User manual   1
- Bio-1D Advanced Software key   1
- USB Security dongle   1 per license

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Installing the Bio-1D Advanced

Bio-1D Advanced requires Microsoft WindowsTM 10 or upper. Microsoft WindowsTM must be installed on your computer before any other installation.
You must have Windows Administrators rights to install the Bio-1D software.
You must accept the license agreement to install the Bio-1D software.

Do not plug the USB dongle key before software installation

The Bio-1D Advanced Software key provided with the manual contains the Bio-1D Advanced program as well as the its manual in a PDF format.

Step 1

⇨ Insert the Bio-1D Advanced Software key in the USB port of your computer.
⇨ Ensure that all other application programs are closed. Windows 10 or upper users should also ensure that they are logged on with administrator privileges.
⇨ Open the USB key

- ☐ Name
- 📁 AcroReader
- 📁 AutoPlay
- 📁 DemoImages
- 📁 Installation
- 📁 Manual
→ 🗐 autorun
- 📄 autorun
- 📄 readme
- 📄 lmsetup
- 📄 Icone-Bio1D-v3
- 📄 Icone-Bio1D-v4
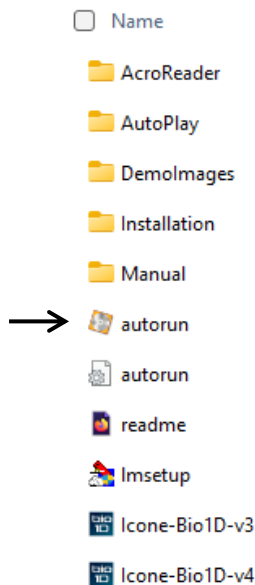
⇨ Please click on the run autorun.exe icon. The Bio-1D Advanced Setup window will appear, welcoming you to the Install Wizard for Bio-1D Advanced Setup.
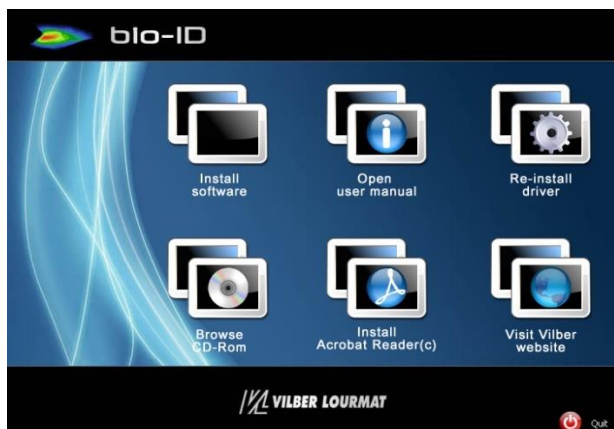
⇨ Please click on the Install Bio-1D software icon.

Step 2

⇨ The welcome screen is displayed, click on NEXT to continue
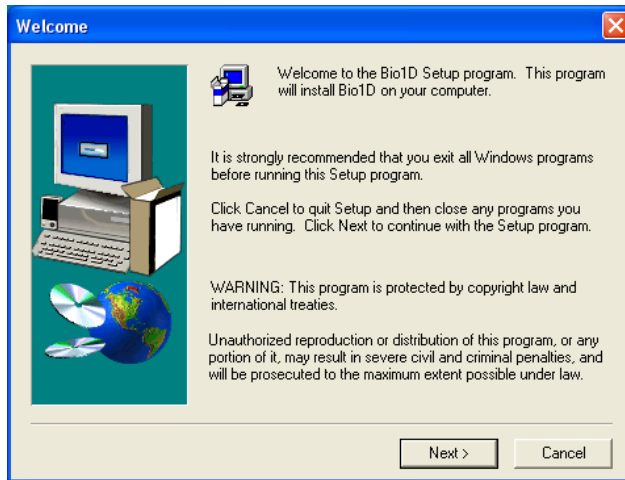
⇨ The Choose Destination Location window appears. Either click on the Browse button to specify the destination directory, or click on Next to accept the default directory, c:\Programfiles\Vilber-lourmat\Bioprofile.
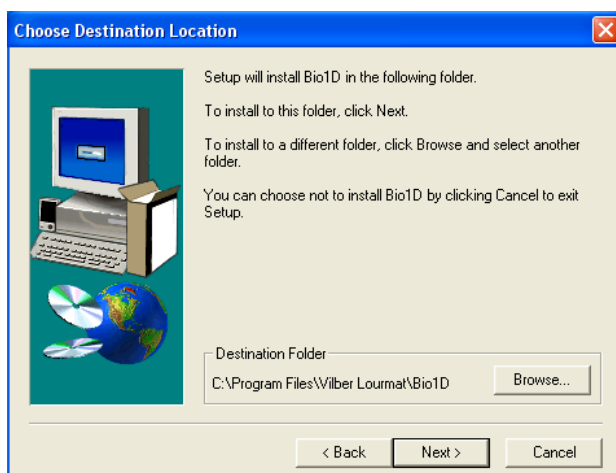
A pop-up window displays the following security message:
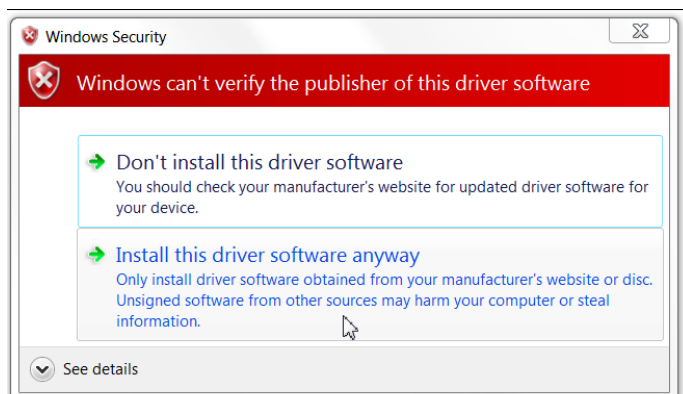
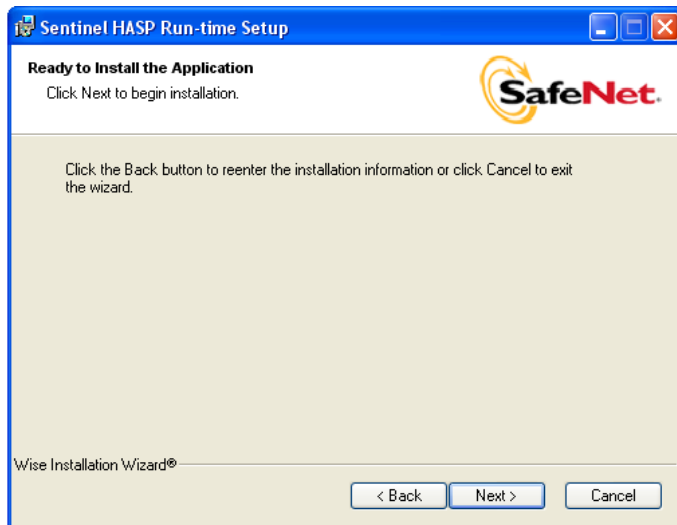Select the "Install this driver software anyway" option. The following message is then displayed:
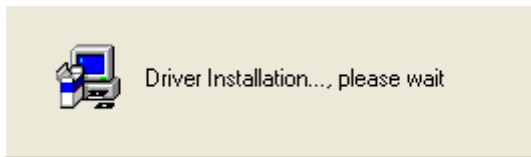
A pop-up window displays the following USB dongle driver installation message:
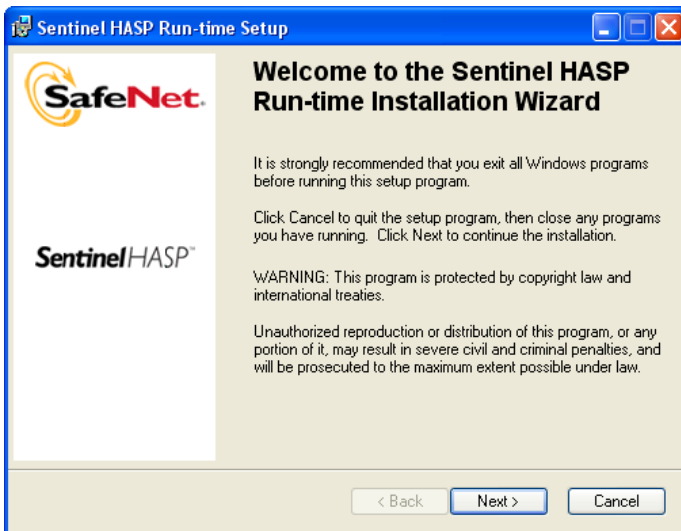
Click on Next.

Select the "I accept the terms in the License Agreement" option.

Then, click on the "Next" button. The setup wizard will then install the driver:
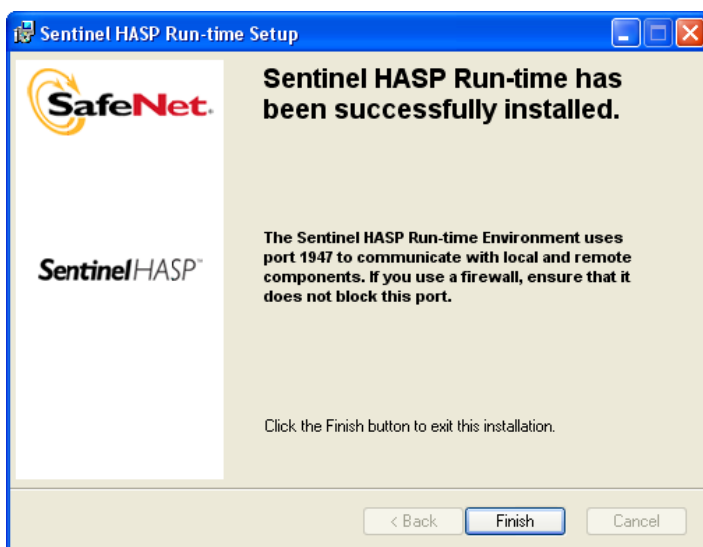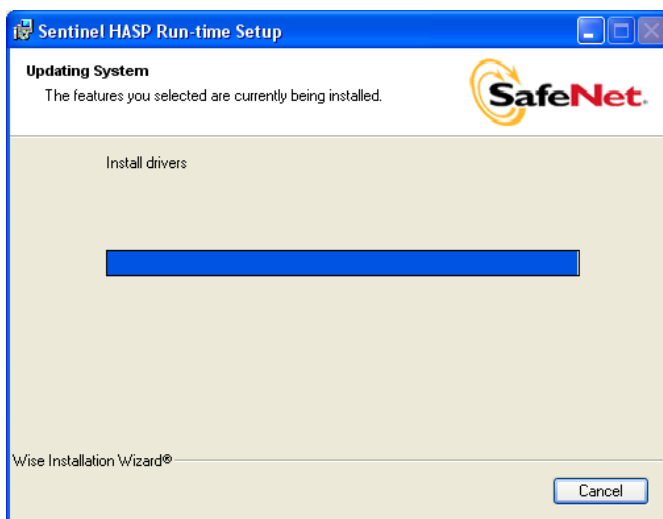
⇨ Click on Finish. Once the software is installed, the system is updated. This can take a few minutes, depending on the computer speed. Then, restart your computer.
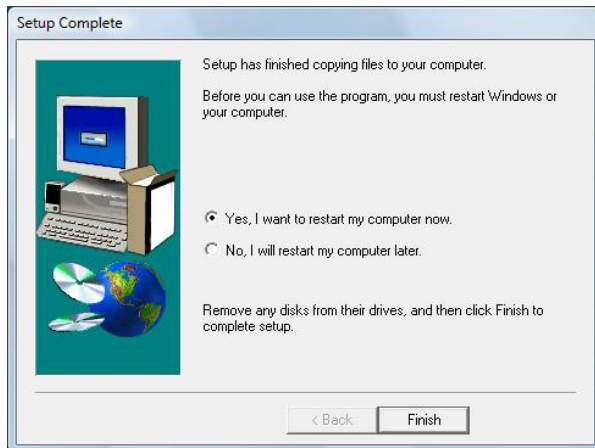
After the restart, plug the USB dongle key in the computer. Keep the Bio-1D CD-Rom in the CD-Rom drive of your computer.

The drivers are then installed by Windows:
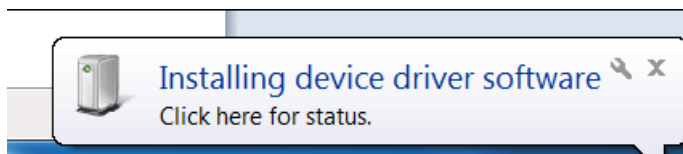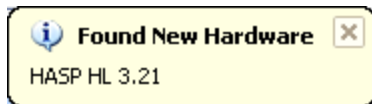
When the drivers are ready to use, you can launch the Bio-1D Advanced software to use the system.

Hardware security dongle

The Bio-1D Advanced software is provided with a hardware security USB dongle.

The Bio-1D Advanced software is protected using a hardware security key (HSK), which is included in your software package. You must connect the USB dongle to the USB port of your computer before you can run the software.

The USB dongle should be connected to the USB port after the Bio-1D Advanced installation procedure.

The USB dongle driver is installed during the Bio-1D Advanced CD-Rom procedure.

Users do not have to reboot

The key is your license to use the software. If the key is lost, you will need to purchase a new license.

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Bio-1D
Quick start

Starting the software

 Click twice on the "Bio-1D Advanced" icon on the Windows Office screen to start the software.

Open an image or an analysis

The software opens on the following window:
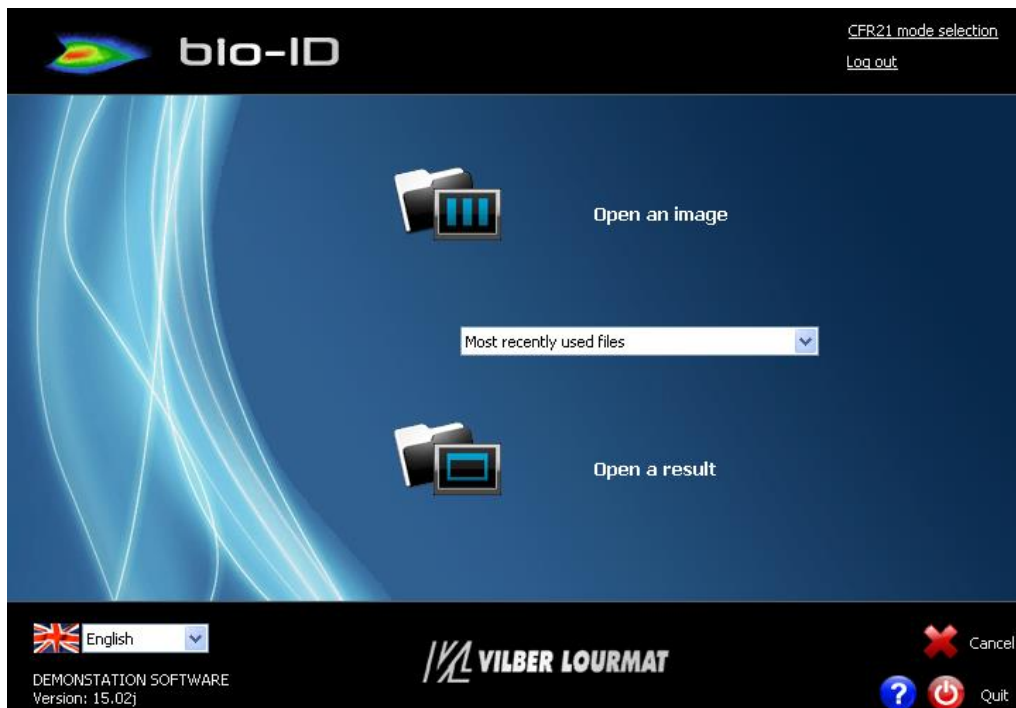
1. Click on the "Open an image" icon to open an image. A pop-up window displays the following menu:
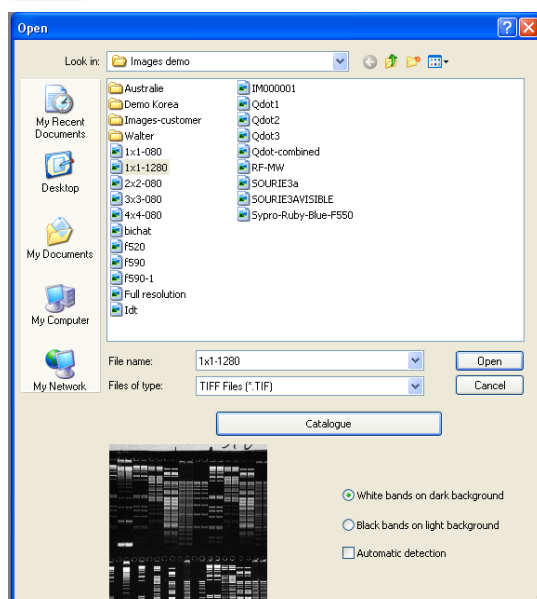
⇨   Browse to specify the image directory
⇨   Double click on the image name you want to load

Note 1: by clicking once on the image, you can preview the image in a thumbnail.

You can then set the bands parameters: white bands / black background / black bands, white background. You can select the following options:
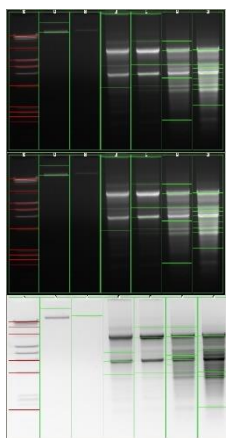
Automatic detection. Bio-1D will automatically detect the bands color scheme according to the defined percentage of tolerance

White bands on dark background for images with white signals and black background

Black bands on light background for images with black signals and clear background

Note 2: the catalogue function allows a preview of the images loaded in the selected directory. To proceed, click on "Catalogue".
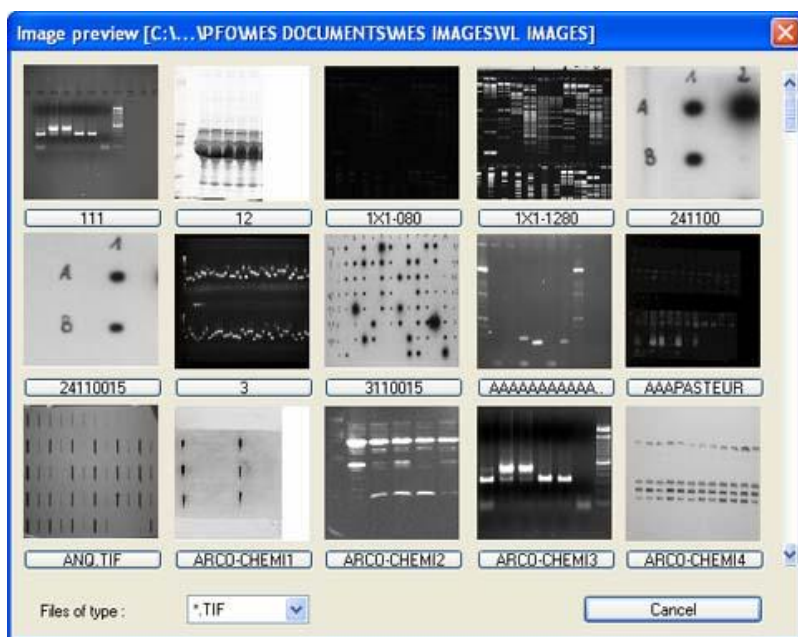
Note 3: the most recently used files allow a fast and easy access to the last 10 images previously open by the Bio-1D Advanced software.
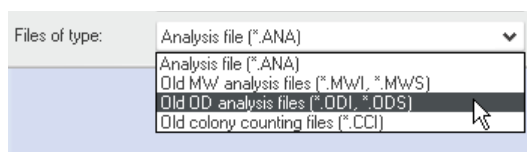
Click on the "Open a result" icon to open a previously saved analysis result. A pop-up window displays the following menu:
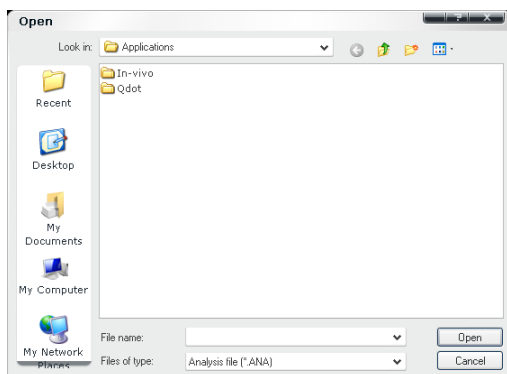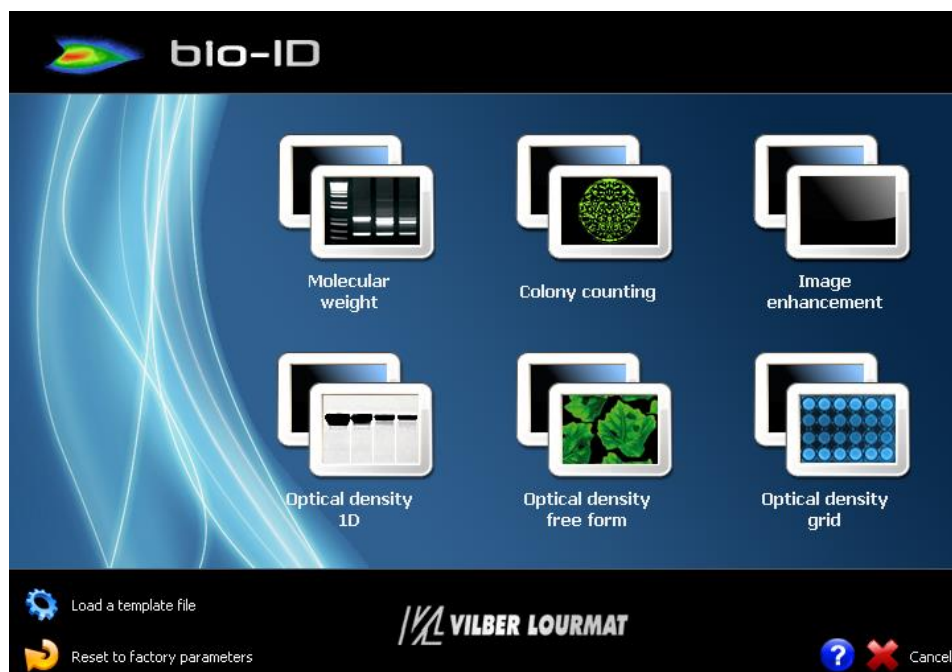
Browse to specify the analysis directory
⇨ Double click on the analysis name you want to load

<u>Note 3</u>: Select the appropriate type file to open the analysis file of the former version of Bio-1D:

Access to the analysis modules

Once an image is opened, a pop-up window displays the software modules menu:

⇨ Select the Molecular weight icon to open the molecular weight analysis (MW) module.

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⇨ Select the Colony counting icon to open the colony counting (CC) analysis module.

⇨ Select the Optical density - 1D icon to open the optical density (OD) analysis module based on a 1D detection.

⇨ Select the Optical density - Free form icon to open the optical density (OD) analysis module based on a free form detection

⇨ Select the Optical density - Grid icon to open the optical density (OD) analysis module based on a grid detection
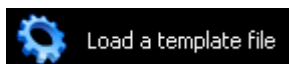

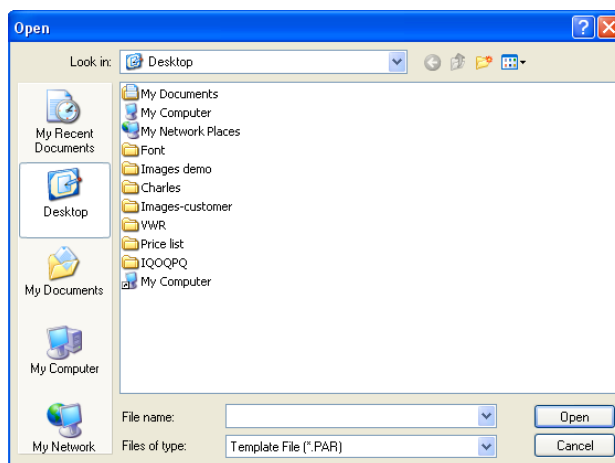⇨ Select the Image enhancement icon to open the image enhancement module

Load a template file

Select the "Load a template file" icon to open a template file:

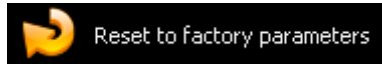A pop-up window displays the following menu:

⇨   Browse to specify the template directory
⇨   Double click on the template name you want to load

<u>Note 1</u>: Please refer to the "How to use a template file" part of this manual for more details on the template.
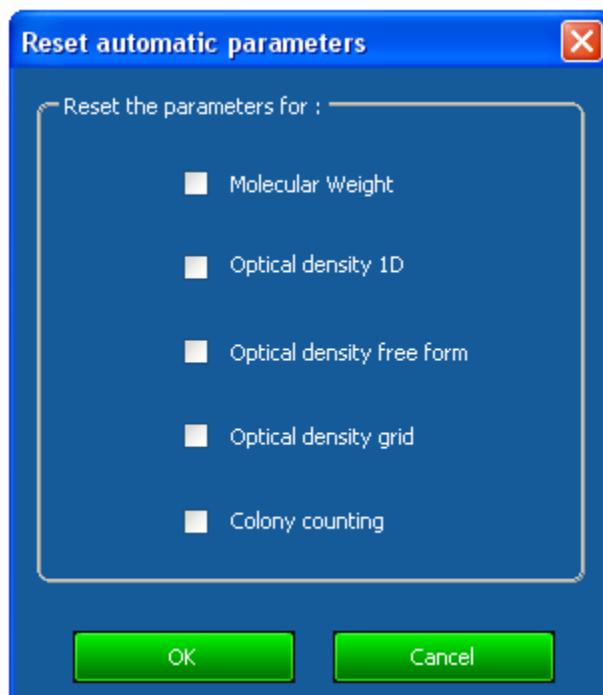
Reset to factory setting

Select the "Reset" icon to reset the parameters to the factory setting.

A pop-up window displays the following menu:

⇨ Select the software module for which you want to reset to the factory setting
⇨ Validate by clicking on OK