

Software

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WinBoat

[WinBoat_logo.png](#)

WinBoat – Running Windows on Linux

“ Recommended and tested version: WinBoat 0.9.0

WinBoat 0.9.0 includes improved configuration options, such as custom **FreeRDP Arguments**, USB passthrough and display scaling.

This version has been tested on:

- Dell Precision 5860 workstations
- Lenovo ThinkPad P16 Gen 2 laptops

1. Using WinBoat

Starting and stopping Windows

The **Home** page shows whether the WinBoat Docker container is currently running.

[Screenshot from 2026-07-29 15-10-14.png](#)

Normally:

- The container starts automatically when WinBoat is opened.
- The container stops after Windows has been shut down.

If Windows has been shut down and you want to start it again:

1. Open the **Home** page in WinBoat.
2. Click the **Play** button to start the Docker container.
3. Wait until the container is shown as running and **WinBoat Guest API** displays **Online**.
4. Open **Windows Desktop**.

If the container does not start automatically when WinBoat is opened, click the **Play** button manually. Windows Desktop cannot be opened until the container is running and **WinBoat Guest API** is online.

Using a USB device in Windows

To make a USB device available inside Windows:

1. Open **WinBoat**.
2. Click the **Settings** gear icon.
3. Enable **Experimental Features**.
4. Find **USB Passthrough** on the same Settings page.
5. Click **Add Device**.
6. Select the device that you want to use inside Windows.

[Screenshot from 2026-07-29 15-21-51.png](#)

The list can include USB drives, external storage devices and other compatible USB hardware.

If the device does not appear inside Windows, close **Windows Desktop** completely and open it again.

“ Once a device is added to Windows, it will no longer be available in Linux.

[Screenshot from 2026-07-29 15-23-14.png](#)

To make the device available in Linux again:

1. Return to **Settings → USB Passthrough**.
2. Find the device in the list.
3. Click the **minus (-) button** next to it.

WinBoat remembers the selected device. If the device is still connected when WinBoat is started again, it will automatically be passed through to Windows and will disappear from Linux until it is removed from the USB Passthrough list.

Changing the display size

Open **WinBoat**, click the **Settings** gear icon and scroll down to the FreeRDP settings.

Display Scaling

Display Scaling changes the size of the complete Windows desktop.

A value between and can be selected. This is the recommended scaling option when Windows is opened through **Windows Desktop**.

Application Scaling

Application Scaling only affects Windows applications opened individually from the WinBoat application list.

Opening applications separately is currently not recommended because performance can be noticeably worse. For normal use, open the complete **Windows Desktop** instead.

Screenshot from 2026-07-29 15-24-30.png

“ **Using multiple monitors:** Press to switch the Windows Desktop between fullscreen and windowed mode. In windowed mode, you can move the WinBoat window to another screen and press again to return to fullscreen.

Adjusting the Windows Desktop resolution

If **Display Scaling at 180%** is still insufficient:

1. Open **WinBoat**.
2. Click the **Settings** gear icon.
3. Scroll down to the FreeRDP settings.
4. Enable **FreeRDP Arguments - Advanced**.
5. Click **Add Argument**.
6. Enter an argument such as:

```
/smart-sizing:3840x2160
```

7. Close **Windows Desktop** completely.
8. Open **Windows Desktop** again to apply the change.

Start with the native resolution of the monitor:

Monitor resolution	FreeRDP argument
Full HD	<code>/smart-sizing:1920x1080</code>
QHD	<code>/smart-sizing:2560x1440</code>
4K	<code>/smart-sizing:3840x2160</code>

The lower Windows resolution is enlarged to fill the available window, making the interface appear larger.

Display Scaling and smart sizing work together. Some combinations may make the Windows interface too large, too small, blurry or distorted.

For the best result:

1. Start with the native resolution of the monitor.
2. Adjust **Display Scaling**.
3. If necessary, change the smart-sizing resolution.
4. Change only one setting at a time and reopen **Windows Desktop** after each change.

If text and icons are still too small, try a lower resolution. For example, on a 4K monitor:

```
/smart-sizing:2560x1440
```

For best image proportions, use a resolution with the same aspect ratio as the monitor. For example, use a `16:9` resolution on a `16:9` screen.

2. NVIDIA driver

The NVIDIA 595 driver has worked well with WinBoat on the Dell Precision 5860 and Lenovo ThinkPad P16 Gen 2 systems.

Install it with:

```
sudo apt update
sudo apt install nvidia-driver-595
sudo reboot
```

The `nvidia-driver-595` package is available for Ubuntu 24.04.

After restarting, verify that the driver is active:

```
nvidia-smi
```

“ This installs the NVIDIA driver on the Linux host. It does not install an NVIDIA driver inside the Windows virtual machine.

3. Updating WinBoat to version 0.9.2

A normal update does not require reinstalling Docker, FreeRDP or Windows.

First, download the new package:

[Download WinBoat 0.9.0 for Ubuntu/Debian](#)

If the file is stored directly in `Downloads`, update WinBoat with:

```
cd ~/Downloads
sudo apt install ./winboat-0.9.2-amd64.deb
```

When version 0.9.0 is already installed, APT displays:

```
winboat is already the newest version (0.9.2).
```

After updating:

1. Restart the PC
2. Close and reopen WinBoat.
3. Allow the WinBoat Guest Server to update if requested.
4. Open the Windows Desktop.
5. Test one Windows application.

The update from WinBoat 0.8.5 to 0.9.0 has been tested while preserving the existing Windows installation, Windows users, applications and files.

“ Do not use **Reset** or **Remove VM** for a normal update. These options can delete the existing Windows installation and its applications.

Imaris

Tips & tricks for Imaris

Segmenting bacteria and fungal spores

When segmenting small objects, e.g. bacteria or fungal spores, Spots don't always work well. E.g., the fungi may vary in size too much, so no singular spot size will fit. Or, the cell wall may be sharply labelled, whilst the inner parts of the cells are not, in which case the Spots finder will fail (it will just place Spots on the bright periphery). In such cases, you can try the following:

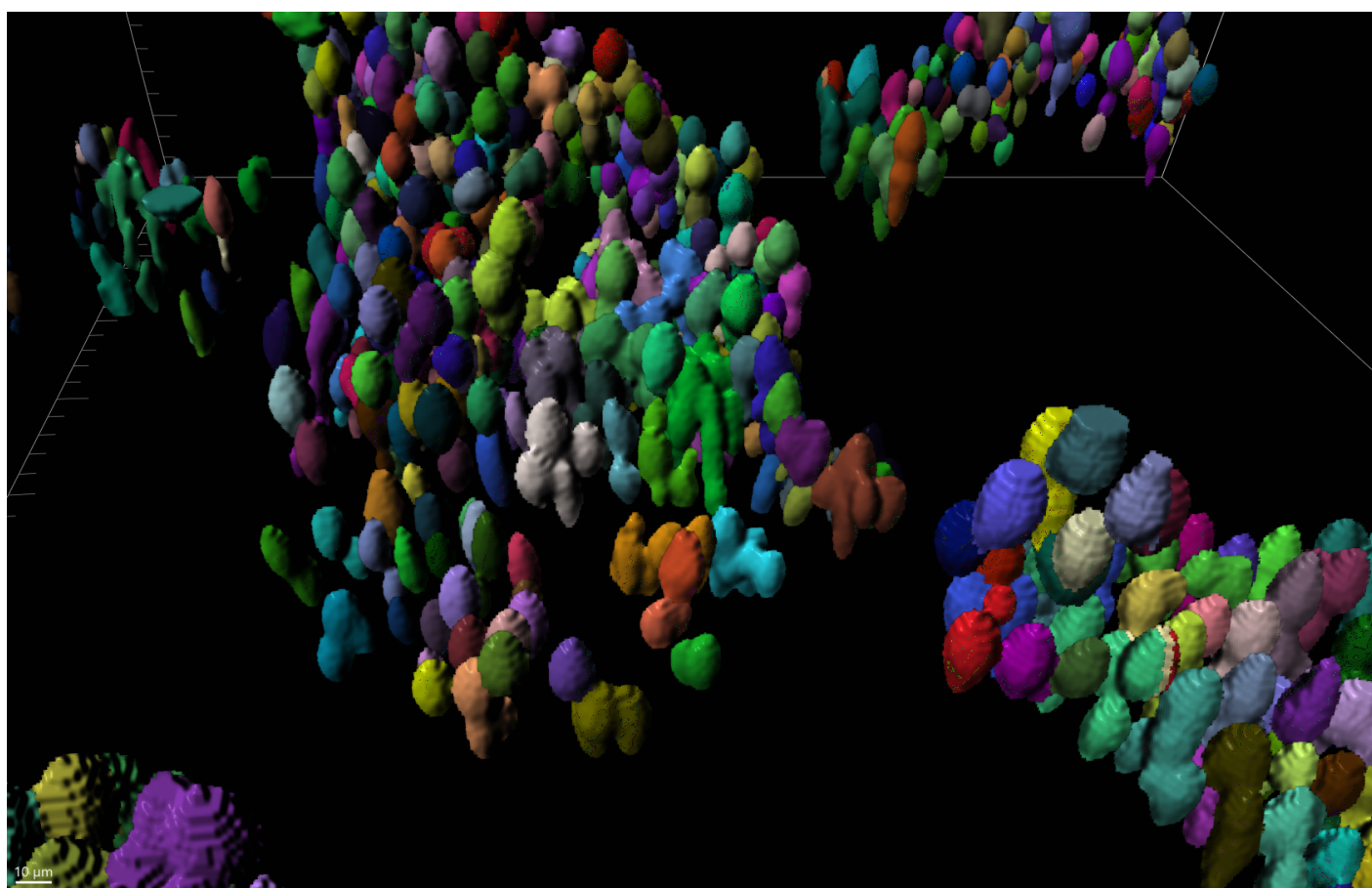
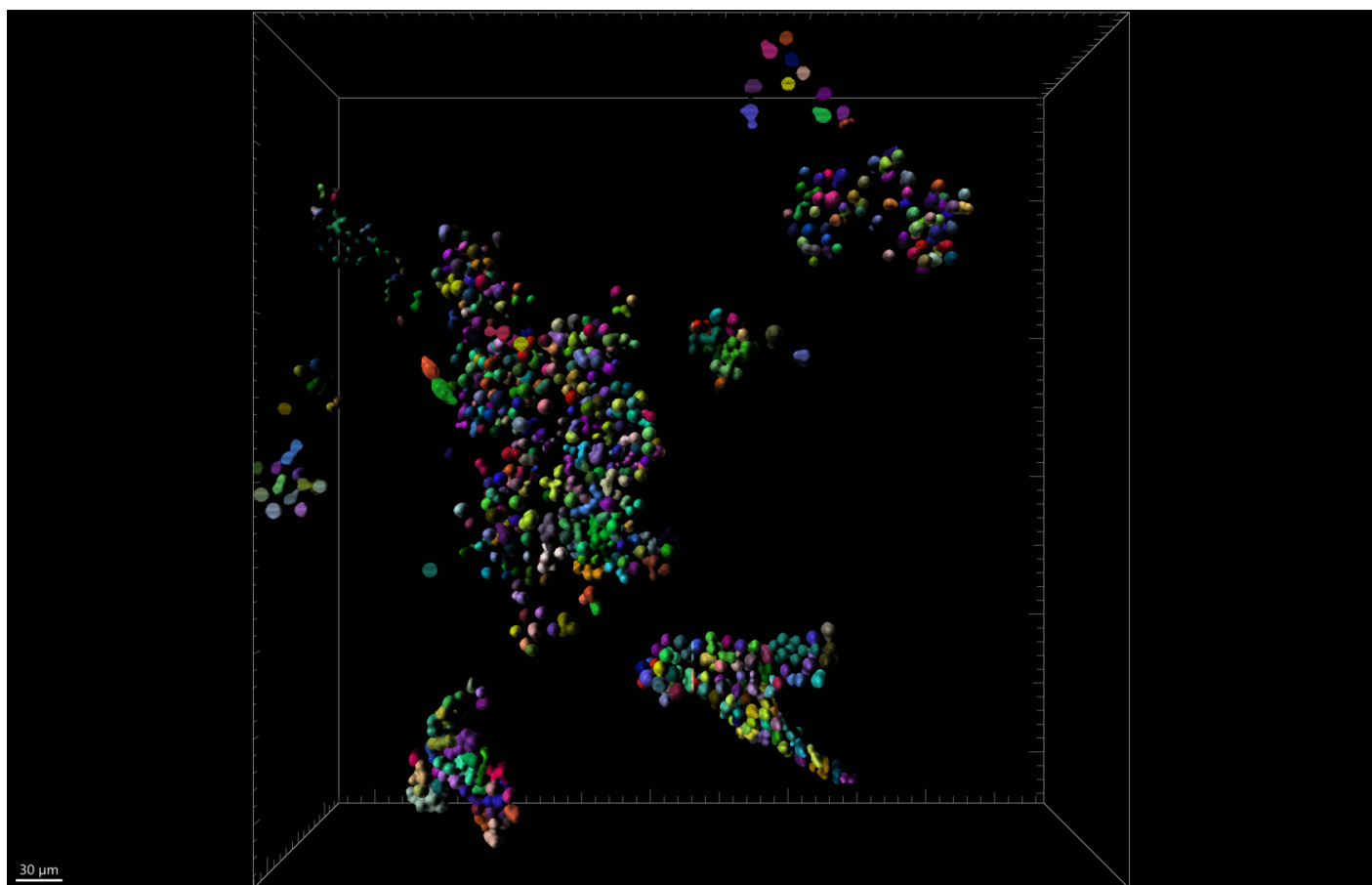
1. Segment the small objects as Surfaces. Do your best to separate the individual objects, but also make sure that you segment everything you need. Do not worry too much about merged objects, we will separate them later.
2. Set up a Cells object on the same channel, but use the now-existing Surfaces representation of the small objects as input ("Imported from Surfaces = true"). Choose the Cell mode where there are only cell membrane labels provided ("Cell Type = Cell Body", see image below; i.e., no nuclei, no intracellular vesicles). Set the Cells size accordingly, and let it segment. The results will be surprisingly good, nicely separating the objects that were merged in the Surfaces representation.

Create Yeast from Cells Object

Parameters

Detect Nucleus = false
Detect Vesicle = false
Enable Region of Interest = false
Track Cells (over time) = false
[Cells Detection]
Imported from Surfaces = true
Cell Type = Cell Body
Cell Source Channel = 1
Cell Smooth Enable = true
Cell Smooth Filter Width = 0,500 μm
Cell Background Subtraction = true
Cell Background Subtraction Width = 2,00 μm
[Filter Cells]
"Cell Number of Voxels" above 200

Segmented yeast as Cells:



Segmented yeast as Surfaces:

