O&O software

O&O BlueCon



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Introduction

O&O BlueCon is a recovery and administration toolkit for Windows PCs and servers that no longer start or no longer work properly. You start the affected computer from an O&O BlueCon USB drive, an ISO image or the Windows boot menu. O&O BlueCon then runs its own Windows environment and gives you access to the Windows installation on the disk, without starting it.

This manual is written for administrators and technicians who keep Windows systems running.

What O&O BlueCon does

- **Repair Windows** – check and repair the component store, the system files and the file system of a Windows installation that does not start.
- **Regain access** – reset forgotten passwords of local accounts and manage local users and groups.
- **Fix drivers, services and updates** – deactivate a faulty driver or service, and remove a Windows update that stops Windows from starting.
- **Edit the registry offline** – change the registry of the installation on the disk.
- **Rescue data** – copy files to an external drive, recover deleted files and back up or restore complete drives.
- **Manage and erase drives** – create and change partitions, and erase drives securely before a PC is passed on or disposed of.
- **Unlock BitLocker drives** – open encrypted drives with the recovery key, a password or a key file.

See Feature overview for the complete list of programs on the boot media.

How O&O BlueCon works

O&O BlueCon has two parts:

1. **The media creator** runs on a working Windows PC. It builds the O&O BlueCon recovery environment and writes it to a USB drive, an ISO or WIM image, or integrates it into the boot menu of that PC. See Create boot media.
2. **The recovery environment** starts on the affected computer. A start wizard finds the Windows installation, loads drivers and sets up the network. The programs then work on that installation. See The recovery environment.

License

O&O BlueCon is commercial software. A valid license is required to create the boot media. Which programs the media contain depends on the edition and license; see Editions and Install and activate.

Where to start

- New to O&O BlueCon: follow First steps. It takes you from installation to the first start of the recovery environment.

- A PC does not start right now: create the boot media on another PC, start the affected PC from it and go to Repair a Windows installation.
- A password is forgotten: see Reset a password.
- You look for the solution to a typical problem: see Common scenarios.
- Something does not work as expected: see Troubleshooting.

> **Prepare Before An Emergency**
>
> Create a boot USB drive while all your PCs are working, and test it on one of them. In an emergency you then only need to plug it in.

This manual does not contain screenshots yet; they will be added in a later update.

Feature overview

The O&O BlueCon boot media contain a set of programs for repairing and administering Windows. This page lists them by task. All programs work on the Windows installation that you selected in the start wizard, not on the recovery environment itself (see Target system).

Repair Windows

Program	Purpose
O&O CheckAndRepair	Checks and repairs the component store (DISM), the system files (SFC) and the file system (CHKDSK) of the installation on the disk. See Repair a Windows installation.
O&O UpdateManager	Removes installed Windows updates, for example an update after which Windows no longer starts. See Remove a Windows update.
O&O DriverManager and **O&O ServiceManager**	Change the startup type of drivers and services to deactivate a faulty one, and find drivers and services whose file is missing. See Deactivate a driver or service.
O&O RegEditor	Opens the registry of the installation on the disk for editing. See Edit the registry offline.
O&O EventViewer	Shows the Application and System event logs of the installation on the disk, or any event log file. See Read the event logs.

Regain access

Program	Purpose
O&O UserManager	Resets passwords of local accounts and manages local users and groups. See Reset a password and Manage users and groups.

Rescue and manage data

Program	Purpose
O&O DiskCommander	File manager with access to all drives; copies files to an external drive. See Copy files from a PC that does not start.
O&O DiskRecovery	Recovers deleted files. See Recover deleted files.
O&O DiskImage	Backs up and restores complete drives and partitions. See Back up or restore a drive.
O&O PartitionManager	Creates, resizes, moves and deletes partitions. See Manage partitions.
O&O SafeErase	Erases drives and partitions so that the data cannot be recovered. See Erase a drive securely.
O&O DeskInfo	Shows the system information of the computer and exports it. See Show system information.

Tools

- **Mozilla Firefox** for online help and downloads
- **Notepad++** for text and log files
- **O&O Calc**, a calculator that also converts between decimal, hexadecimal, octal and binary numbers
- **Microsoft PowerShell** and, through **Run…**, the command prompt (see Command line)
- **O&O BlueCon - Configuration**, the start wizard, to change the target system, drives, network and screen later

Firefox, Notepad++ and PowerShell are downloaded while the media creator builds the boot media. See Start menu and programs.

Available depending on the license

O&O DiskImage, O&O DiskRecovery, O&O PartitionManager, O&O SafeErase and network boot are only included when your license contains them (see Editions). The media creator adds them automatically; the **Programs** tab of the expert mode shows which programs a medium receives (see Choose drivers and programs).

Next steps

- System requirements
- First steps

Editions

O&O BlueCon is available in several editions. The edition is part of your license; the media creator reads it from the serial number and builds boot media with the programs that your edition contains.

The editions

Edition	Intended for
Personal Edition	Private users who service their own PC at home
Corporate Edition	Companies that service a business PC
Technician Edition	IT professionals and service providers who work on many computers, also at their customers' sites
Site Edition	Companies that service all PCs at one location
Enterprise Edition	Companies that service PCs at several locations

How many computers, technicians or locations a license covers is stated in your license terms. The O&O BlueCon product page describes the current offer.

What the editions contain

All editions contain the programs for repairing Windows, regaining access and copying files (see Feature overview). They differ in these programs and functions:

Program or function	Personal	Corporate	Technician	Site	Enterprise
O&O DiskImage – back up and restore drives	–	✓	✓	✓	✓
Network boot (PXE) – start computers over the network	–	–	✓	–	✓

O&O DiskRecovery, O&O SafeErase and O&O PartitionManager are added when your license contains them. The **Programs** tab of the expert mode shows which programs a medium receives (see Choose drivers and programs).

> **Domain Accounts**
>
> No edition changes domain accounts or Microsoft accounts. O&O UserManager manages the local accounts of a Windows installation. See Reset a password.

Change to another edition

Boot media keep the programs of the edition they were created with. After changing to another edition, create the boot media again.

Next steps

System requirements

System requirements

PC that creates the boot media

- 64-bit Windows 10 or Windows 11, or Windows Server 2016 or later
- Administrator rights for the installation
- Microsoft .NET 10 Desktop Runtime (x64); the setup downloads and installs it if it is missing
- Internet access while the boot media are created: the media creator downloads the current Windows recovery environment from Microsoft and some programs, such as Firefox. Without internet access it uses the recovery environment of the PC itself.
- For a boot USB drive: a USB flash drive or, with **Show all drives**, a USB hard disk or SSD. The whole drive is erased.

No Windows ADK or Windows PE add-on is required.

Computers you can repair

O&O BlueCon works with Windows installations of these versions:

- Windows 10 and Windows 11 (all editions, x64)
- Windows Server 2016, 2019, 2022 and 2025 (all editions)

The computer must be able to start from a USB drive or from the ISO image (for example as a DVD or in a virtual machine). Boot media created with the default settings start on computers with BIOS and with UEFI firmware.

> **Secure Boot**
>
> If the computer does not start from the boot media, check the boot order and the Secure Boot setting in the firmware. See Troubleshooting.

Next steps

Install and activate

Install and activate

You install O&O BlueCon on a working Windows PC. This installs the media creator, which builds the boot media. Nothing is installed on the computers you repair later.

Prerequisites: administrator rights and a PC that meets the system requirements.

Install O&O BlueCon

1. Start the downloaded setup file.
2. If Microsoft .NET 10 Desktop Runtime is missing, confirm its installation.
3. Follow the setup: accept the license agreement and choose the installation folder.
4. Click **Install**.

The setup creates the shortcut **O&O BlueCon** on the desktop and in the Start menu. It opens the media creator.

Enter the license

The media creator asks for the license the first time you create boot media.

1. Start **O&O BlueCon**.
2. Choose one of the two tiles, for example **Create a bootable medium to use the application**.
3. In **License information**, enter **Name:**, **Company:** and **Serial number:** exactly as stated in your license information. Alternatively click **Paste license information from clipboard** after copying the complete license information.
4. If the license window shows further tabs for programs with a license of their own, such as O&O DiskImage, select **License is available and should be used** and enter that license as well.
5. Click **Apply**.

The window is skipped from now on, unless a license is missing or no longer valid.

> **Personalized Licenses**
>
> For personalized licenses, the name and company must be entered exactly as in the license information. Otherwise the media creator reports the license as invalid.

Update O&O BlueCon

Install a newer version over the existing one; the setup replaces it. Boot media you created before are not updated. Create them again to get the new version.

Next steps

First steps

First steps

This tutorial takes you through a complete first run: you create a boot USB drive, start a computer from it and open a program on its Windows installation. Use a working computer for this test.

Prerequisites: O&O BlueCon is installed and licensed (Install and activate), and you have a USB flash drive whose contents you no longer need.

1. Create the boot USB drive

1. Connect the USB flash drive.
2. Start **O&O BlueCon**.
3. Click **Create a bootable medium to use the application**.
4. Under **Target medium**, select the USB drive (**Removable drive** with its name and size).
5. Click **Apply**.
6. Check the drive named in the confirmation and click **Erase disk**.

The media creator now runs through its phases from **Preparations** to **Create media**. This takes several minutes. When **Successfully created!** appears, the USB drive is ready.

> **The Whole Drive Is Erased**
>
> All partitions and files on the selected USB drive are deleted.

2. Start a computer from the USB drive

1. Connect the USB drive to the test computer and restart it.
2. Open the boot menu of the firmware and select the USB drive. The key depends on the manufacturer, often F12, F11, F8 or Esc.

O&O BlueCon starts and shows **Starting O&O BlueCon…**. See Start a computer from the boot media for details.

3. Check the start wizard

The start wizard **Welcome to O&O BlueCon** shows three rows:

- **Target** – the Windows installation found on the disk
- **Network** – the network and internet connection
- **Screen** – the screen resolution

A green status means that nothing needs to be done. Click **Next**.

4. Open a program

1. Click **Start** in the taskbar or press the Windows key.
2. Select **Programs > Administrative Tools > O&O DeskInfo**.

O&O DeskInfo shows the hardware of the computer. All programs are also available as tiles in the launch pad at the top of the desktop.

5. End O&O BlueCon

1. Click **Start**, then **Restart**.
2. Confirm with **Restart** and remove the USB drive.

The computer starts its own Windows again.

Next steps

- User interface
- Repair a Windows installation
- Integrate O&O BlueCon into Windows for a boot menu entry without a USB drive

User interface

O&O BlueCon has two user interfaces: the media creator on your Windows PC and the recovery environment on the computer you repair.

Media creator

The main window **Create recovery environment** offers two tiles:

Element	Purpose
Create a bootable medium to use the application	Writes the recovery environment to a USB drive or saves it as an ISO or WIM image. See Create boot media.
Integrate the application directly into Microsoft Windows	Adds O&O BlueCon to the boot menu of this PC. See Integrate O&O BlueCon into Windows.
Reset boot menu	Removes the boot menu entry again; shown only after an integration.
Advanced options	Expert mode, pre-build cleanup, O&O Syspectr and log files. See Settings.
Start the recovery environment	Explains how to start the boot media.
About	Version and license information.

Start wizard

After the start, the recovery environment shows **Welcome to O&O BlueCon**. It prepares the computer: it finds the Windows installation, assigns drive letters, unlocks BitLocker drives on request and sets up network and screen. Each row has a status and a **Change** button. See Prepare the target system.

You can open the start wizard again at any time with **Start > Control Panel > O&O BlueCon - Configuration**.

Desktop

Element	Purpose
Launch pad	Tiles at the top of the screen, one per program, grouped like the start menu. One click starts a program.
Start	Opens the start menu with **Control Panel**, **Programs**, **About**, **Help and Support**, **Run…**, **Restart** and **Shut down**.
Taskbar buttons	One button per open window. Click it to bring the window to the front; click it again to minimize the window. Right-click shows the window menu.
Clock	Shows the time; click it for the date.

There is no Windows Explorer in the recovery environment. To work with files, use **O&O DiskCommander** (Windows key+E).

See Start menu and programs and Keyboard shortcuts.

Next steps

The recovery environment

Common scenarios

This page starts from the problem. Each scenario names the steps and links to the pages that describe them. In every scenario, you first start the computer from the O&O BlueCon boot media (Start a computer from the boot media) and check the target system in the start wizard (Prepare the target system).

Windows no longer starts

1. Save the important files first: Copy files from a PC that does not start.
2. Repair the installation: Repair a Windows installation.
3. If the problem began after a change, undo it: remove the last update or deactivate the last installed driver (see the next scenarios).

Windows stops starting after an update

1. Read the event logs to see which component fails.
2. Remove a Windows update that was installed shortly before the problem began.
3. Restart the computer from its disk.

A blue screen after a new driver

1. Find the driver in the **System** event log: Read the event logs.
2. Deactivate the driver or service.
3. Restart the computer, then install a corrected driver in Windows.

A password is forgotten

- For a local account: Reset a password.
- If no administrator account works any more: create a new one, see Manage users and groups.

Domain accounts and Microsoft accounts cannot be changed with O&O BlueCon.

The Windows drive is locked by BitLocker

Have the 48-digit recovery key ready and unlock the BitLocker drive. It explains why the key is needed and where to find it.

Files were deleted

1. Do not start Windows from the affected disk: every write can overwrite deleted data.
2. Recover deleted files to an external drive.

A disk is failing

1. Copy the most important files first: Copy files from a PC that does not start.
2. Create an image of the disk: Back up or restore a drive.

The computer cannot be repaired

If a backup image of the computer exists, restore it: Back up or restore a drive.

Split the Windows partition

To separate Windows and data on a disk with only one partition, see Manage partitions.

Pass on or dispose of a computer

1. Save the data you still need on another drive.
2. Erase the drives securely.

No network cable

Connect to a Wi-Fi network in the start wizard to save data on a network share or to download drivers: Set up network and screen.

The recovery environment

The O&O BlueCon recovery environment is a small Windows system based on the Windows recovery environment (Windows PE). It starts from the boot media and runs entirely in the memory of the computer. The Windows installation on the disk is not started; O&O BlueCon accesses it as data.

Why a separate environment

A Windows installation that does not start cannot repair itself. And while Windows is running, many of its files, the registry and its drivers are in use and locked. In the recovery environment, the installation on the disk is idle: its files can be checked, replaced and changed, and drivers, services and updates that prevent the start can be deactivated or removed.

Drive X: and what is lost at restart

The recovery environment uses the drive **X:** in memory. Programs, settings and temporary files of the recovery environment are stored there.

- Everything on X: is lost when you restart or shut down the computer.
- Save files you want to keep, such as logs, exports and reports, on a drive of the computer or on a USB drive.
- Changes to the Windows installation on the disk – repairs, registry edits, password changes – are permanent.

Drivers

The boot media contain the drivers of the PC that created them, plus the drivers of the recovery environment itself. On other hardware, a storage or network driver may be missing; the start wizard then offers to load it. See Load drivers.

Languages

The boot media are in German when the media creator shows German, and in English for every other language of the media creator. The start wizard, the desktop and the programs follow the language of the boot media.

Related tasks

- Create boot media
- Start a computer from the boot media
- The target system

The target system

The target system is the Windows installation on the disk of the computer that O&O BlueCon services. Programs such as O&O CheckAndRepair, O&O RegEditor and O&O UserManager work on the target system, not on the recovery environment.

How O&O BlueCon finds it

When the recovery environment starts, the start wizard:

1. Loads the drivers on the boot media.
2. Searches for BitLocker-encrypted drives.
3. Gives every volume a drive letter.
4. Searches all drives for Windows installations.

If it finds exactly one installation, it selects it. The volumes of the target system then get the same drive letters they have in that Windows, so the Windows drive is usually **C:** in the recovery environment as well.

Several installations

If a computer has several Windows installations, the start wizard reports it and you choose one under **Target**. You can change the selection later; programs started afterwards use the new target system. See Prepare the target system.

When no installation is found

The start wizard cannot find an installation when:

- the drive is encrypted with BitLocker and still locked – unlock it, see Unlock a BitLocker drive;
- the storage controller needs a driver that the boot media do not contain – load it, see Load drivers;
- the drive is defective or not connected.

Related tasks

- Prepare the target system
- Repair a Windows installation

Create boot media

Boot media let you start any computer with O&O BlueCon, even when its Windows no longer starts. You create them on a working PC with the media creator.

Prerequisites:

- O&O BlueCon is installed and licensed (Install and activate).
- Internet access, so that the current Windows recovery environment and the downloaded programs can be fetched.
- For a USB drive: a drive whose contents you no longer need.

Choose the target medium

Target medium	Use
Removable drive	Boot USB drive for computers with BIOS or UEFI firmware. The recommended choice.
ISO image	File for burning a CD or DVD with a burning program, or for starting a virtual machine.
WIM image	Windows image file of the recovery environment, for your own boot infrastructure.

Create the boot media

1. Start **O&O BlueCon**.
2. Click **Create a bootable medium to use the application**.
3. If the license window appears, enter the license and click **Apply**.
4. In **Select the target medium**, choose the **Target medium**.

- A USB hard disk or SSD is listed only when you select **Show all drives**.

5. Click **Apply**.
6. For an ISO or WIM image: choose the folder and file name, then click **Save**. For a USB drive: check the disk named in the confirmation, then click **Erase disk**.

The progress view shows the five phases **Preparations**, **Integrate packages**, **Integrate drivers**, **Write settings** and **Create media**. The first time, downloading the recovery environment takes longer; later builds reuse it.

> **The Whole Disk Is Erased**
>
> When you write to a USB drive, the whole disk is erased, including all its partitions – not only the drive letter shown.

Result

The media creator reports **Successfully created!**. A USB drive has the volume label **OOBC** and starts on computers with BIOS and with UEFI firmware.

If it reports **Failed to create!**, see Troubleshooting.

What the boot media contain

- The O&O BlueCon recovery environment and the programs of your license
- All drivers of the PC that creates the media, so that the boot media also work on similar hardware
- German if the media creator shows German, otherwise English

To leave out drivers or optional programs, use the expert mode, see Choose drivers and programs.

> **Keep The Media Up To Date**
>
> Boot media are not updated automatically. Create them again after installing a new O&O BlueCon version, and when you need drivers for new hardware.

Next steps

- Start a computer from the boot media
- Integrate O&O BlueCon into Windows

Integrate O&O BlueCon into Windows

You can add O&O BlueCon to the boot menu of a PC. The PC can then start the recovery environment without a USB drive, as long as its disk and boot manager still work.

Prerequisites: O&O BlueCon is installed and licensed on this PC.

Add the boot menu entry

1. Start **O&O BlueCon**.
2. Click **Integrate the application directly into Microsoft Windows**.
3. Wait until the media creator reports **Successfully integrated!**.

O&O BlueCon copies the recovery environment to the PC and adds an entry to the boot menu. It also changes the boot menu so that it is shown at every start for 5 seconds; the previous settings are saved.

Start O&O BlueCon from the boot menu

1. Restart the PC.
2. Select O&O BlueCon in the boot menu.

Remove the boot menu entry

1. Start **O&O BlueCon**.
2. Click **Reset boot menu**.
3. Confirm the question **Do you want to remove O&O BlueCon from the boot menu?**.

The entry is removed and the previous boot menu settings are restored.

> **No Replacement For A Boot USB Drive**
>
> The boot menu entry only works while the disk and the Windows boot manager of this PC are intact. Keep a boot USB drive for the cases in which the PC does not get as far as the boot menu.

Next steps

Prepare the target system

Choose drivers and programs

By default, the media creator adds all drivers of the PC and all programs of your license to the boot media. In expert mode you choose them yourself before each build, for example to add a storage driver for other hardware or to leave out optional programs.

Turn on expert mode

1. Start **O&O BlueCon**.
2. Click **Advanced options**.
3. On the **Advanced** tab, select **Expert mode**.
4. Close the window.

From now on, the expert window opens before each build. To build with the default settings again, clear **Expert mode**.

Choose the drivers

1. Create the boot media as usual (Create boot media).
2. In the expert window, open **Apply host drivers**.
3. Choose one option:

- **Apply all drivers from the host system (recommended)**
- **Apply no drivers**
- **Apply selected drivers** – then select the drivers in the list, or click **Add** to add a driver (.inf file) that is not installed on this PC. **Select all** and **Select none** change the whole list.

Choose the programs

1. In the expert window, open **Programs**.
2. Clear the programs you do not want on the boot media.

The **Note** column explains why a program cannot be cleared:

Note	Meaning
Always included	Part of the recovery environment.
Chosen in the license window	Included because of a license entered in the license window.
Left out by another setting	Excluded by another setting, for example the O&O Syspectr option.
Downloaded during the creation	Downloaded from the internet while building, for example Firefox. Clear it to skip the download.

3. Continue the build.

Result

The boot media contain only the selected drivers and programs. Programs you left out are also missing from the start menu and the launch pad.

Next steps

Settings

Start a computer from the boot media

To service a computer, start it from the O&O BlueCon boot media instead of its own Windows.

Prerequisites: boot media (Create boot media) or a boot menu entry (Integrate O&O BlueCon into Windows).

Start from a USB drive

1. Connect the O&O BlueCon USB drive to the computer.
2. Switch the computer on, or restart it.
3. Open the boot menu of the firmware and select the USB drive. The key depends on the manufacturer, often F12, F11, F8 or Esc. Alternatively, put the USB drive first in the boot order of the BIOS or UEFI firmware.

Start from the ISO image

- **Virtual machine:** attach the ISO file as a virtual DVD drive and start the virtual machine from it.
- **DVD:** burn the ISO file with a burning program, insert the DVD and start the computer from the DVD drive.

Start from the boot menu

Restart the computer and select O&O BlueCon in the Windows boot menu.

Result

O&O BlueCon starts and shows **Starting O&O BlueCon…** while the recovery environment loads its drivers and the network. Then the start wizard **Welcome to O&O BlueCon** opens.

> **Start Without Changes To The Disk**
>
> Starting O&O BlueCon does not change the Windows installation on the disk. Changes are made only when you use a program that changes it.

End O&O BlueCon

1. Click **Start**.
2. Click **Restart** or **Shut down** and confirm.

The start wizard also has a **Restart** button. Remove the USB drive before the computer starts again, so that it starts its own Windows.

Next steps

Prepare the target system

Prepare the target system

The start wizard **Welcome to O&O BlueCon** prepares the computer so that all programs can work on its Windows installation. It runs automatically after the start; you only intervene when a row reports a problem.

Read the status

The wizard shows three rows, each with a status and a **Change** button:

Row	Good status	When you need to act
Target	A Windows system was found and selected for maintenance.	Several Windows systems were found, or none.
Network	Network and internet connections are available.	No connection or no network device. See Set up network and screen.
Screen	The screen is optimally configured.	Higher resolutions are available. See Set up network and screen.

When a row needs a driver, the wizard shows **Load storage driver…** or **Load network driver…** next to it. See Load drivers.

When everything is ready, click **Next**. The desktop opens.

Choose the Windows installation

1. In the **Target** row, click **Change**.
2. On the **Target** tab, select the installation. The list shows **Title**, **Location**, **Build** and **Install date**.
3. Check the line **Selected Windows instance:**.
4. Click **Close**.

Assign drive letters

For O&O BlueCon to service a Windows installation, all its drives need drive letters. The wizard assigns them automatically. To change one:

1. In the **Target** row, click **Change**.
2. Open the **Drives** tab.
3. Select the drive and click **Assign**.
4. Choose the drive letter and click **OK**.
5. Click **Close**.

No Windows installation found

If the **Target** row reports **No installed Windows system found**:

- the Windows drive may be encrypted – unlock it, see Unlock a BitLocker drive;
- a storage driver may be missing – click **Load storage driver…**, see Load drivers.

Open the start wizard again

Click **Start > Control Panel > O&O BlueCon - Configuration**. The wizard opens with the current settings; **Next** closes it again.

Next steps

- Repair a Windows installation
- The target system

Unlock a BitLocker drive

A drive encrypted with BitLocker stays locked in the recovery environment until you unlock it. Only then can O&O BlueCon find and service the Windows installation on it.

Prerequisites: one of the drive's key protectors – usually the 48-digit BitLocker recovery key.

Why you need the recovery key

Many computers with Windows 10 or Windows 11 unlock their drive with the TPM (Trusted Platform Module) alone. You never enter a password, and Windows 11 often turns on this device encryption automatically. The TPM releases the key only when the computer starts its own Windows in the usual way. When it starts O&O BlueCon from a USB drive, the TPM keeps the key, so the drive stays locked.

This protects your data: anyone who starts the computer from another medium cannot read the drive. To service it with O&O BlueCon, you prove that you are allowed to access it with the recovery key.

Find the recovery key

The recovery key was saved when BitLocker or device encryption was turned on:

- **Microsoft account:** sign in on another device at aka.ms/myrecoverykey. The list shows each key with its key ID.
- **Company computers:** your IT department usually stores the key in Active Directory or Microsoft Entra ID.
- **Printout or file:** if you printed the key or saved it to a file or USB drive when turning on BitLocker.

When there are several keys, the **Recovery key ID** in the unlock window shows you which one belongs to this drive.

Unlock the drive

1. In the start wizard, click **Change** in the **Target** row.
2. Open the **BitLocker** tab. It lists the encrypted drives with their status and protectors.
3. Select the drive and click **Unlock**.
4. In **Unlock your drive**, select the key protector:

- **NumericalKey** – enter the recovery key in the eight fields. The window shows the **Recovery key ID**, which helps you find the right key.
- **Password** – enter the BitLocker password. **Show** displays it.
- **ExternalKey** – select the removable drive that contains the key file.

5. Click **OK**.
6. Click **Close**.

Result

The drive is unlocked until O&O BlueCon is ended. The start wizard searches it for a Windows installation again and updates the **Target** row.

If the drive cannot be unlocked, O&O BlueCon shows an error with a code. Check that the recovery key belongs to this drive by comparing the recovery key ID.

> **No Access Without A Key**
>
> O&O BlueCon cannot open a BitLocker drive without a valid key protector. Protectors that need the TPM together with a PIN or a startup key are not offered in the recovery environment; use the recovery key instead.

Next steps

Prepare the target system

Load drivers

On hardware for which the boot media contain no driver, the recovery environment may not see the disk or the network adapter. You can load the missing driver from a USB drive while O&O BlueCon is running.

Prerequisites: the driver as an unpacked folder with an .inf file, for example on a USB drive. Driver packages from the manufacturer that come as a setup program must be unpacked on another PC first.

Load a storage or network driver

1. In the start wizard, click **Load storage driver…** (no Windows found) or **Load network driver…** (no network device).
2. Open the folder with the driver and select the .inf file.
3. Click **Open**.

O&O BlueCon loads every driver in this folder (not in subfolders) and reports how many were loaded. The start wizard then searches for drives and network devices again.

Load a driver for a specific device

1. In the start wizard, click **Change** in the **Target** row.
2. Open the **Driver** tab. It lists the devices by class with their driver and status.
3. Select the device and click **Load driver**.
4. Select the .inf file and click **Open**.

> **Use Matching Drivers Only**
>
> An unsuitable driver can crash or damage the system. Load only drivers intended for this device and for 64-bit Windows 10 or 11.

Avoid loading drivers each time

Add the driver to the boot media: install it on the PC that creates them, or add it in expert mode under **Apply selected drivers** > **Add**. See Choose drivers and programs.

Next steps

Prepare the target system

Set up network and screen

A network connection lets you copy data to a network share, download drivers and tools with Firefox and open the online help. The recovery environment uses DHCP automatically; you only intervene when the **Network** row of the start wizard reports a problem.

Configure a wired connection

1. In the start wizard, click **Change** in the **Network** row.
2. On the **IP configuration** tab, select the **Network device**.
3. Choose **Automatic** for DHCP, or **Manual** and enter **IP address**, **Subnet mask**, **Gateway servers** and **DNS**.
4. Click **Apply**.
5. Click **Close**.

Connect to a Wi-Fi network

1. In the start wizard, click **Change** in the **Network** row.
2. Open the **Wi-Fi** tab and select the network. For a hidden network, select **Hidden network** and enter the **Name (SSID) of the hidden network**.
3. Enter the key under **WPA2-Key:**.
4. Click **Connect**.
5. Click **Close**.

Result

The **Network** row reports **Network and internet connections are available.** If it reports **No network devices found**, the adapter needs a driver, see Load drivers.

Change the screen resolution

1. In the start wizard, click **Change** in the **Screen** row.
2. Select a resolution in the list.
3. Click **Apply**. The resolution is tested and kept.
4. Click **Close**.

Next steps

Copy files from a PC that does not start

Repair a Windows installation

When Windows no longer starts because system files or the file system are damaged, O&O CheckAndRepair checks and repairs them from the recovery environment. It uses the Windows tools DISM, SFC and CHKDSK and runs them against the installation on the disk.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system (Prepare the target system).

Check and repair

1. Click **Start > Programs > SystemRecovery > O&O CheckAndRepair**.
2. Check the installation under **Windows installation:**. The target system of the start wizard is preselected; choose another one in the list if necessary.
3. Select the areas to check:

- **Check component store** – the Windows component store (DISM)
- **Check system files** – the protected system files (SFC)
- **Check disk** – the file system of the Windows drive (CHKDSK)

4. Click **Check** and wait for the result.
5. If problems are found, click **Repair**.
6. Wait until the repair is finished, then restart the computer from its disk.

The functions **Check Windows recovery environment** and Windows Update are not available for an installation that is not running.

> **Do Not Interrupt A Repair**
>
> Keep the computer connected to power and let the repair finish. **Cancel** stops the work but does not undo changes already made.

Result

O&O CheckAndRepair shows the result for each area. **Show log file** opens the details. The logs are stored on the RAM drive X: of the recovery environment; copy them to a USB drive if you need them later.

If problems remain after the repair, see Troubleshooting.

The O&O CheckAndRepair manual describes the program in detail.

Next steps

- Deactivate a driver or service when a driver stops the start
- Remove a Windows update when Windows fails after an update

Deactivate a driver or service

A faulty driver or service can stop Windows from starting, for example with a blue screen right after a new driver was installed. O&O DriverManager and O&O ServiceManager change the startup type of drivers and services of the installation on the disk, so that the faulty one is not loaded at the next start. Both are views of the same program: O&O DriverManager opens with the drivers, O&O ServiceManager with the services.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system.

Deactivate a driver

1. Click **Start > Programs > Administrative Tools > O&O DriverManager**.
2. Check the **Target system:** at the top. **Change…** selects another Windows installation.
3. Find the driver: type part of its name, service name, description or file into **Search:** (Ctrl+F).
4. Select the driver. To change several entries at once, select them all.
5. Set **Startup type:** to **Disabled** in the details pane, or right-click the entry and choose **Startup type > Disabled**.
6. Read the question and click **Change**.
7. Close the program and restart the computer from its disk.

Deactivate a service

1. Click **Start > Programs > Administrative Tools > O&O ServiceManager**.
2. Select the service and set its startup type to **Disabled** as described for drivers.
3. Close the program and restart the computer from its disk.

Services and **Drivers** switch between the two lists in the same window (Ctrl+S and Ctrl+D). F5 reads the lists again.

Startup types

Startup type	Meaning
Boot	Loaded by the boot loader, for drivers needed to start Windows, such as storage drivers. Drivers only.
System	Loaded while Windows starts. Drivers only.
Automatic	Started automatically after the start. A service can also show *delayed start* or *trigger start*.
Manual	Started only on demand
Disabled	Not loaded

Before every change, the program asks for confirmation. It warns when Windows loads the entry while it starts, and it lists the entries that need it (**Required by:**) and will not start either.

> **Essential Drivers**
>
> Do not deactivate drivers that Windows needs to start, such as the storage controller or system bus drivers. Windows then no longer starts at all.

Undo a change

Each change keeps the previous registry file of the installation.

1. Click **Backups…**.
2. Select the backup from before the change. **Saved** shows when it was made.
3. Click **Restore** and confirm.

The current file is kept as a new backup, so you can undo the restore too.

Find drivers and services with a missing file

Entries whose file no longer exists on the installation are marked in red, and the details pane says **This file does not exist on the installation.** The status bar counts them. Such entries often remain after an incomplete uninstallation and can cause errors at startup; deactivate them.

Next steps

Read the event logs to find out which driver or service fails

Remove a Windows update

If Windows no longer starts after an update, remove that update from the recovery environment with O&O UpdateManager.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system.

Remove the update

1. Click **Start > Programs > Administrative Tools > O&O UpdateManager**.
2. Check the **Target:** at the top. O&O UpdateManager uses the Windows installation selected in O&O BlueCon.
3. Wait until the installed updates are listed. Reading them can take a while.
4. Select the update that was installed last before the problem began. The **Installed on** column helps; expand an entry to see its details.
5. Click **Remove…**.
6. Check the summary and start the removal, for example with **Remove 1 update**.
7. Wait until the removal is complete, then restart the computer from its disk.

Some removals are completed the next time Windows starts.

Result

The update is removed from the installation. Windows Update offers it again later; postpone or block it until the manufacturer has corrected it.

> **Stopping A Removal**
>
> Windows removes the selected updates one after another. An update whose removal has started is always finished; you can stop the removal of the remaining ones.

> **Updates That Cannot Be Removed**
>
> Servicing stack updates are permanent, and packages that are part of Windows cannot be removed. O&O UpdateManager says so in the list.

History

O&O UpdateManager records every change in its history, and **Undo…** carries out the opposite operation where one exists. In O&O BlueCon the history is kept on drive X: and is lost when you restart the computer.

Next steps

Repair a Windows installation if Windows still does not start

Edit the registry offline

O&O RegEditor opens the registry of the Windows installation on the disk. You change it as if that Windows were running, for example to remove a startup entry or correct a setting that stops Windows from starting.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system.

Open the registry of the target system

1. Click **Start > Programs > Administrative Tools > O&O RegEditor**.

O&O RegEditor loads the registry of the target system. **HKEY_LOCAL_MACHINE** and **HKEY_USERS** show the keys of that installation, not those of the recovery environment.

If no target system is known, O&O RegEditor asks for the Windows folder of the installation, for example **C:\Windows**.

Find keys in the offline registry

No user is signed in to the Windows installation on the disk, and Windows is not running. Some keys you know from a running Windows therefore look different:

In a running Windows	In O&O RegEditor
HKEY_CURRENT_USER	Not shown. The settings of each user are under **HKEY_USERS**.
HKEY_CLASSES_ROOT	Not shown. Use **HKEY_LOCAL_MACHINE\SOFTWARE\Classes**.
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet	Not shown. Windows keeps numbered copies, such as **ControlSet001**. The value **Current** under **HKEY_LOCAL_MACHINE\SYSTEM\Select** names the one Windows uses; it is usually 1, that is **ControlSet001**.

To get to a key quickly:

- **Edit > Find…** searches keys, values and data, optionally for whole words or with a regular expression.
- **Edit > Go to…** opens a key by its path. **View > Toolbars > Address bar** shows the path of the selected key and accepts a path you type.

Change a value

1. Export the key you want to change: select it and click **File > Export…**. Save the .reg file on a drive of the computer or on a USB drive, not on X:.
2. Change the value.
3. Close O&O RegEditor. The registry of the target system is unloaded.

4. Restart the computer from its disk.

> **Changes Are Saved At Once**
>
> O&O RegEditor writes every change directly into the registry of the installation on the disk. There is no automatic backup; export the key before you change it.

Undo a change

Import the exported file again with **File > Import…**. The .reg files are compatible with the Windows Registry Editor.

The O&O RegEditor manual describes the program in detail.

Next steps

Deactivate a driver or service

Read the event logs

Windows records errors of drivers, services and programs in its event logs. O&O EventViewer shows the logs of the installation on the disk, so you can find out what went wrong before Windows stopped starting.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system.

Show the logs of the target system

1. Click **Start > Programs > Administrative Tools > O&O EventViewer**.
2. Check the **Target:** at the top. **Change…** selects another Windows installation.
3. Choose the **System** log for drivers and services, or the **Application** log for programs.
4. Narrow the list: set the dates under **From** and **To**, or choose a **Source**.
5. Browse the list page by page with ◀ and ▶. The columns show **Level**, **Date and time**, **Source** and **Event ID**.
6. Select an entry. **General** shows its message, **Details** the technical data.

Look for errors around the time of the failed start. The **Source** and the **Event ID** of an error often name the driver or service that fails.

Reload (F5) reads the logs again.

Open a log file

To read a log from another computer or a saved log:

1. Click **Open log…** (Ctrl+O), or **+**.
2. Select the .evtx file.

If O&O EventViewer finds no Windows installation, use this to open a log file directly.

Next steps

- Deactivate a driver or service
- Remove a Windows update

Reset a password

If nobody knows the password of a local Windows account any more, O&O UserManager sets a new one. You do not need the old password.

Prerequisites:

- O&O BlueCon is started and the Windows installation is selected as the target system.
- The account is a local account of that installation. Domain accounts and Microsoft accounts cannot be changed with O&O UserManager.
- You are authorized to change the account.

Set a new password

1. Click **Start > Programs > Administrative Tools > O&O UserManager**.
2. Check the **Target system:** at the top. **Change…** selects another Windows installation.
3. Open **Users** and select the account.
4. Click **Set password…**.
5. Enter the **New password:** and repeat it under **Confirm password:**. Click **OK**.
6. Close O&O UserManager and restart the computer from its disk.

If the account is disabled or locked out, open **Properties…** and clear **Account is disabled** or **Account is locked out** on the **General** tab.

Result

The user signs in to Windows with the new password.

> **Encrypted Files And Saved Passwords**
>
> Resetting the password invalidates the user's files encrypted with the Windows Encrypting File System (EFS), the user's personal certificates and saved network passwords. Their encryption cannot be restored. Copy encrypted files before, while the user can still decrypt them, or use the user's EFS certificate backup.

> **Microsoft Account**
>
> For an account that is linked to a Microsoft account, reset the password online at Microsoft, or create a new local administrator account with O&O UserManager and sign in with it. See Manage users and groups.

Next steps

Manage users and groups

Manage users and groups

O&O UserManager manages the local users and groups of the Windows installation on the disk. Use it, for example, to create a new administrator account when no administrator account works any more.

Prerequisites: O&O BlueCon is started and the Windows installation is selected as the target system.

Create a local administrator account

1. Click **Start > Programs > Administrative Tools > O&O UserManager**.
2. Open **Users** and click **Add user…**.
3. In **New user**, enter the **User name:**, a **Password:** and the same password under **Confirm password:**. Click **OK**.
4. Select the new user and click **Properties…**.
5. On the **Member of** tab, click **Add…** and add the group **Administrators**. Click **OK**.
6. Close O&O UserManager and restart the computer from its disk.

New users are not a member of any group. Without step 5, the account has no administrator rights.

Change users

Select a user in **Users**, then:

- **Rename** (F2) changes the user name.
- **Delete** (Del) removes the account after a confirmation.
- **Properties…** changes the **Full name:** and **Description:**, the password options such as **User must change password on next logon** and **Password never expires**, and **Account is disabled** and **Account is locked out**. The **Member of** tab shows and changes the groups, the **Profile** tab the **Profile path:**, **Logon script:** and **Home folder:**.
- **Set password…** sets a new password, see Reset a password.

Manage groups

1. Open **Groups**.
2. Click **Add group…** and enter the **Group name:**, or select an existing group and click **Properties…**.
3. Under **Members:**, add users with **Add…** or remove them with **Remove**.
4. Click **OK**.

Result

The changes apply at the next start of the Windows installation.

Deleting Accounts

A deleted account cannot be restored. A new account with the same name is a different account for Windows and has no access to the files and settings of the old one.

Next steps

Reset a password

Copy files from a PC that does not start

Before you repair a Windows installation, save the important files. O&O DiskCommander gives you access to all drives of the computer, including protected system and user folders.

Prerequisites:

- O&O BlueCon is started.
- An external drive with enough free space, or a network share and a network connection (Set up network and screen).
- A BitLocker-encrypted drive must be unlocked first (Unlock a BitLocker drive).

Copy the files

1. Connect the external drive.
2. Press the Windows key+E, or click **Start > Programs > O&O DiskCommander**.
3. In one pane, open the drive of the computer, for example `C:\Users\<user name>`.
4. In the other pane, open the external drive or the network share.
5. Select the files and folders and copy them to the other pane.

Connect a network share

To copy the files to a server, a NAS or another computer, connect its shared folder as a drive.

1. Set up the network connection in the start wizard if it is not yet available (Set up network and screen).
2. In O&O DiskCommander, click **Connect** in the toolbar, then **Map network drive…**.
3. In the Windows dialog, choose a free drive letter and enter the path of the share, for example `\\server\share`.
4. If the share asks for it, sign in with an account of the computer that provides the share.
5. Open the new drive in the other pane and copy the files to it.

The connection ends when you restart the computer.

Result

The files are on the external drive or the network share. Check a few of them by opening them before you continue with the repair.

> **Do Not Save On The Same Disk**
>
> Copy rescued files to another drive, never to a different folder on the same disk. If the disk is failing, both copies would be lost.

When files are missing

Files that were deleted cannot be copied with O&O DiskCommander. Use O&O DiskRecovery, see Recover deleted files.

Next steps

- Back up or restore a drive
- Repair a Windows installation

Recover deleted files

O&O DiskRecovery searches a drive for deleted files and restores them. In O&O BlueCon, the affected drive is not in use, so its deleted data is not overwritten by Windows while you search.

Prerequisites:

- Your license includes O&O DiskRecovery (see Feature overview).
- An external drive for the recovered files.

Recover the files

1. Connect the external drive.
2. Click **Start > Programs > FileRecovery > O&O DiskRecovery**.
3. Select the drive on which the files were deleted.
4. Start the search and wait for the result.
5. Select the files you want to recover.
6. Choose the external drive as the destination and recover the files.

> **Never Recover To The Same Drive**
>
> Saving recovered files on the drive you are searching can overwrite the very data you want to recover. Always choose another drive as the destination.

Result

The recovered files are on the external drive. Whether a file can be recovered completely depends on how much of the drive has been written to since it was deleted.

Next steps

Copy files from a PC that does not start

Back up or restore a drive

O&O DiskImage backs up complete drives and partitions as an image and restores them. In O&O BlueCon you can do this while Windows is not running – before a risky repair, or to restore a computer that cannot be repaired.

Prerequisites:

- Your license includes O&O DiskImage (see Feature overview).
- An external drive or network share with enough free space for the image.
- BitLocker drives are unlocked (Unlock a BitLocker drive).

Back up a drive

1. Click **Start > Programs > FileSafety > O&O DiskImage**.
2. Start a drive backup.
3. Select the drives or partitions to back up.
4. Choose the external drive or the network share as the destination.
5. Start the backup and wait until it is finished.

Image a failing disk

If a disk reports errors or contains a damaged file system, create a forensic image of it before you try to rescue data. A forensic image copies every sector, including unused and unreadable areas. You then work on the image and spare the failing disk.

1. Start a drive backup as described above and select the failing disk.
2. In the backup settings, set **Imaging method** to **Forensic imaging**.
3. Save the image on another drive and wait until it is finished.
4. To work with the image, choose **Mount drive from image file…** in O&O DiskImage. The image appears as a drive; recover files from it, for example with O&O DiskRecovery. **Unmount drive** removes the drive again.

Restore a drive

1. Click **Start > Programs > FileSafety > O&O DiskImage**.
2. Start a restore and select the image file.
3. Select the drive or partition to restore to.
4. Start the restore and wait until it is finished.
5. Restart the computer from its disk.

> **Restoring Overwrites The Target**
>
> A restore replaces all data on the target drive or partition with the contents of the image.

Result

The image or the restored drive is complete. Save the reports you want to keep on a drive of the computer: the settings and reports of O&O DiskImage in the recovery environment are lost at restart.

Next steps

Manage partitions

Manage partitions

O&O PartitionManager creates, resizes, moves and deletes partitions. In O&O BlueCon, no partition of the disk is in use, so even the Windows partition can be changed.

Prerequisites:

- Your license includes O&O PartitionManager (see Feature overview).
- A current backup of the drives you change (Back up or restore a drive).

Change a partition

1. Click **Start > Programs > Administrative Tools > O&O PartitionManager**.
2. Select the disk and the partition.
3. Choose the action, for example resize, move, create or delete.
4. Check the planned changes and apply them.
5. Wait until all changes are complete before you close the program.

> **Data Loss Possible**
>
> Deleting a partition deletes its data. An interrupted resize or move – for example by a power failure – can make the partition unreadable. Back up first and keep the computer connected to power.

Split the Windows partition

If a disk has only one partition for Windows and data, you can split it, for example to keep your data apart from Windows.

1. Select the Windows partition.
2. Right-click it and choose **Change location and size**.
3. Reduce **Partition size** so that free space remains after the partition. Keep enough free space for Windows and its updates on the Windows partition.
4. Right-click the free space and choose **New partition > Primary partition**.
5. Apply the changes and wait until they are complete.

Result

The partitions are changed. If you changed the Windows partition, restart the computer from its disk and check that Windows starts.

O&O PartitionManager includes its own detailed help, which opens from the program.

Next steps

Erase a drive securely

Erase a drive securely

Before a computer is sold, returned or disposed of, its drives must be erased so that no data can be recovered. O&O SafeErase overwrites complete drives and partitions. In O&O BlueCon, even the Windows drive can be erased, because Windows is not running.

Prerequisites:

- Your license includes O&O SafeErase (see Feature overview).
- All data you still need is saved on another drive.

Erase a drive

1. Click **Start > Programs > FileSafety > O&O SafeErase**.
2. Choose to erase a complete drive or partition.
3. Select the drives. Check the selection carefully by size and name.
4. Choose the erase method.
5. Start the erase and confirm the warning.
6. Wait until O&O SafeErase reports that the erase is complete.

> **Erased Data Cannot Be Recovered**
>
> Erasing cannot be undone, not even with data recovery software. Disconnect all external drives you want to keep before you start.

Result

The drives contain no recoverable data. After erasing the Windows drive, the computer no longer starts until Windows is installed again or an image is restored.

In O&O BlueCon, O&O SafeErase only erases drives and partitions. Functions for the running Windows, such as erasing internet traces or the Recycle Bin, are not available.

Next steps

Show system information to document the erased computer

Show system information

O&O DeskInfo shows the system information of the computer: processor, memory, drives, components and security features. Use it to identify a computer's hardware, for example to find the right driver, or to document a computer before repairing or erasing it.

Show the information

1. Click **Start > Programs > Administrative Tools > O&O DeskInfo**.
2. Choose a category: **System summary**, **Security**, **Hardware resources**, **Components**, **Software environment** or **Product keys**.
3. To find a value, use the search box (Ctrl+F).

Export a report

1. Click **Export**.
2. Choose the format, for example HTML, Text, CSV or NFO (the format of the Windows system information, msinfo32).
3. Choose whether to export the full report or the current page. Select **Hide sensitive data** before you pass the report on.
4. Save the file on a drive of the computer or on a USB drive.

Limits

In O&O BlueCon, O&O DeskInfo reads the running system: the hardware of the computer and the recovery environment. Software information therefore refers to the recovery environment, not to the Windows installation on the disk.

The O&O DeskInfo manual describes the program in detail.

Next steps

Load drivers

Settings

The media creator keeps its settings under **Advanced options**. The recovery environment is configured in the start wizard **O&O BlueCon - Configuration**; those settings apply until the computer is restarted.

Advanced options

Advanced

Option	Meaning	Default
Expert mode	Opens the expert window before each build, to choose drivers and programs. See Choose drivers and programs.	Off
Pre-build cleanup	Deletes the cached recovery environment and the working files before the next build. Use it only when building fails for no apparent reason. **Enable pre-build cleanup once** applies it to the next build; **Disable pre-build cleanup** turns it off again.	Off

O&O Syspectr

Shown only when O&O Syspectr is installed on the PC.

Option	Meaning	Default
Integrate O&O Syspectr	Adds the O&O Syspectr agent to the boot media, so that a computer started with O&O BlueCon appears in O&O Syspectr for remote support. When you turn it on, the media creator asks whether the agent is used only for the current system; otherwise each start of O&O BlueCon creates a new temporary system in O&O Syspectr.	Off

Log

Option	Meaning	Default
View log files	Opens the folder with the log files of the media creator. O&O Support asks for them when building fails.	–

Expert mode

Tab	Option	Meaning	Default
Apply host drivers	**Apply all drivers from the host system (recommended)**	Adds all drivers of the PC to the boot media.	Selected
	Apply no drivers	Adds no drivers of the PC.	–
	Apply selected drivers	Adds only the drivers selected in the list and the drivers added with **Add**.	–
Programs	Program list	Optional programs to include or leave out.	All included

Target medium

Option	Meaning	Default
Target medium	**ISO image**, **WIM image** or a **Removable drive**.	First removable drive
Show all drives	Also lists USB hard disks and SSDs. Internal disks and the system disk are never listed.	Off

Start wizard

Area	Settings
Target	Windows installation to service, drive letters, drivers for devices, BitLocker unlock. See Prepare the target system.
Network	Network device, automatic or manual IP configuration, Wi-Fi. See Set up network and screen.
Screen	Screen resolution.

Start menu and programs

The start menu and the launch pad of the recovery environment show the same programs. Programs that the boot media do not contain – because of the license or the expert mode – are missing.

Programs

Start menu entry	Purpose	License
Control Panel > O&O BlueCon - Configuration	Start wizard: target system, drives, BitLocker, drivers, network, screen	Included
Programs > O&O DiskCommander	File manager	Included
Programs > Mozilla Firefox	Web browser	Included, downloaded
Programs > Notepad++	Text editor	Included, downloaded
Programs > Accessories > Microsoft PowerShell	PowerShell 7	Included, downloaded
Programs > Accessories > O&O Calc	Calculator, also for hexadecimal, octal and binary numbers	Included
Programs > Administrative Tools > O&O RegEditor	Registry of the target system	Included
Programs > Administrative Tools > O&O UserManager	Local users, groups and passwords	Included
Programs > Administrative Tools > O&O DeskInfo	System information	Included
Programs > Administrative Tools > O&O ServiceManager	Services of the target system	Included
Programs > Administrative Tools > O&O EventViewer	Event logs of the target system	Included
Programs > Administrative Tools > O&O DriverManager	Drivers of the target system	Included
Programs > Administrative Tools > O&O PartitionManager	Partitions	Depending on the license
Programs > Administrative Tools > O&O UpdateManager	Windows updates of the target system	Included
Programs > FileSafety > O&O DiskImage	Drive images	Depending on the license
Programs > FileSafety > O&O SafeErase	Secure erasing of drives	Depending on the license

Start menu entry	Purpose	License
Programs > FileRecovery > O&O DiskRecovery	Recovery of deleted files	Depending on the license
Programs > SystemRecovery > O&O CheckAndRepair	Repair of the target system	Included

"Downloaded" means the media creator downloads the program while it builds the boot media.

Further entries

Entry	Purpose
About	Version and license of O&O BlueCon
Help and Support	Opens this manual in Firefox
Run…	Starts a program or opens a file by name, for example `cmd` for the command prompt. **Browse…** selects the file.
Restart	Ends O&O BlueCon and restarts the computer
Shut down	Ends O&O BlueCon and switches the computer off

Keyboard shortcuts

Keys	Action
Windows key	Opens or closes the start menu
Windows key+E	Opens O&O DiskCommander
Alt+Tab	Switches between open windows
Enter	In the start wizard: **Next**

Keyboard layout

The keyboard layout follows the language of the boot media: English boot media use the US layout, German boot media the German layout.

Command line

For tasks without a program of their own, the recovery environment offers Microsoft PowerShell and the Windows command prompt. Both run in the recovery environment, not in the Windows installation on the disk.

Open the command line

Command line	How to open it
Microsoft PowerShell (PowerShell 7)	**Start > Programs > Accessories > Microsoft PowerShell**
Command prompt	**Start > Run…**, enter `cmd` and click **OK**

PowerShell is downloaded while the media creator builds the boot media. If the expert mode skipped the download, the entry is missing; the command prompt is always available.

Type `exit` to close the window.

Drive letters

- **X:** is the drive of the recovery environment in memory. Everything saved there is lost at restart.
- The drives of the computer can have other letters than in Windows. The **Drives** tab of the start wizard shows and changes them (see Prepare the target system).

Check the letter with `dir` before you run a command that changes a drive.

Scripts

Keep scripts and batch files on a USB drive or a drive of the computer, not on X:. Start them with their full path, for example `E:\scripts\collect-logs.cmd`.

> **Commands Run Without Confirmation**
>
> Commands of the command line change the drives of the computer directly. A wrong drive letter can delete or overwrite the wrong data. Back up first.

Windows tools

The recovery environment is based on the Windows recovery environment and contains its command-line tools, for example `diskpart`, `chkdsk` and `bcdboot`. To check and repair Windows, prefer O&O CheckAndRepair: it applies DISM, SFC and CHKDSK to the right installation (see Repair a Windows installation).

The old commands of earlier O&O BlueCon versions, such as `passwd` or `vmap`, are no longer included. Use the programs in the start menu instead, for example O&O UserManager for passwords.

Crash reports

When a program in the recovery environment ends unexpectedly, O&O BlueCon offers to save a memory dump. O&O Support uses it to find the cause.

The dialog

The dialog **Application unexpectly closed** suggests a folder for the dump file and shows the free space and the space the dump needs.

Element	Meaning
Path	Folder for the dump file. O&O BlueCon suggests the boot USB drive, otherwise the RAM drive X:. A drive of the computer is never suggested.
…	Choose another folder
OK	Saves the dump and ends the program
Cancel	Ends the program without saving a dump

The file name is `OOBC-Dumps\<program>-<date>-<time>.dmp`.

> **Dumps On X: Are Lost At Restart**
>
> If the dump is saved on X:, copy it to a USB drive before you restart the computer.

Blue screens

If the recovery environment itself stops with a blue screen, the stop code stays on the screen. Note it for your support request.

Send a dump to support

See Support and more from O&O.

Glossary

Term	Meaning
BitLocker	Drive encryption of Windows. An encrypted drive must be unlocked with a key protector, usually the recovery key, before O&O BlueCon can access it.
BitLocker recovery key	A 48-digit number that unlocks a BitLocker drive. Its recovery key ID identifies the drive it belongs to.
Boot media	A USB drive, ISO image or WIM image with the O&O BlueCon recovery environment.
CHKDSK	Windows tool that checks and repairs a file system.
DISM	Windows tool that checks and repairs the Windows component store, from which system files are restored.
Expert mode	Option of the media creator for choosing the drivers and programs of the boot media.
Host system	The PC on which the media creator builds the boot media.
ISO image	A file with the contents of a CD or DVD. It is burned to a disc or attached to a virtual machine.
Launch pad	The program tiles at the top of the O&O BlueCon desktop.
Media creator	The O&O BlueCon program on a working Windows PC that builds the boot media.
RAM drive X:	The drive of the recovery environment in memory. Its contents are lost at restart.
Recovery environment	The Windows PE system of O&O BlueCon that runs from the boot media.
SFC	System File Checker; Windows tool that checks and restores protected system files.
Start wizard	The window **Welcome to O&O BlueCon** that prepares the target system, network and screen.
Target system	The Windows installation on the disk that the O&O BlueCon programs service.
UEFI	The firmware of current computers, successor of the BIOS. It decides from which drive the computer starts.
Windows PE	A minimal Windows for installation and recovery. The basis of the recovery environment.
WIM image	Windows image file. O&O BlueCon can save the recovery environment in this format.

Troubleshooting

Each section names a symptom, its usual cause and the solution. If a problem is not listed here or persists, see Support and more from O&O.

Creating the boot media fails

Cause: The download of the recovery environment or of a program failed, or a cached file from an earlier build is damaged.

Solution:

1. Check the internet connection, and that a firewall or proxy allows the media creator to connect.
2. Click **Advanced options**, then **Enable pre-build cleanup once**.
3. Create the boot media again.
4. If it still fails, open **Advanced options > Log > View log files** and send the log files to O&O Support.

The USB drive is not listed as a target

Cause: The media creator lists only removable drives. USB hard disks and SSDs are hidden by default; internal disks are never listed.

Solution:

1. Select **Show all drives**.
2. If the drive is still missing, connect it to another USB port and reopen **Select the target medium**.

The computer does not start from the USB drive

Cause: The firmware starts from another drive first, or Secure Boot or the firmware settings prevent the start from USB.

Solution:

1. Open the boot menu of the firmware (often F12, F11, F8 or Esc) and select the USB drive.
2. In the firmware settings, allow starting from USB and put the USB drive first in the boot order.
3. If the computer still does not start, turn off Secure Boot temporarily. Turn it on again after you have finished with O&O BlueCon.
4. Try another USB port, preferably one directly on the computer.
5. Create the boot media again, or use another USB drive.

No Windows installation is found

Cause: The Windows drive is encrypted with BitLocker, the storage controller needs a driver, or the disk is not recognized.

Solution:

1. Unlock the BitLocker drive, see Unlock a BitLocker drive.
2. Load the storage driver, for example for a RAID or NVMe controller, see Load drivers.
3. Check in the firmware settings whether the disk is detected. If it is not, the disk or its connection is probably defective.

There is no network connection

Cause: The network adapter needs a driver, the network uses no DHCP, or the Wi-Fi is not connected.

Solution:

1. If the start wizard reports **No network devices found**, load the network driver, see Load drivers.
2. Enter the IP settings manually or connect to the Wi-Fi network, see Set up network and screen.

The BitLocker drive cannot be unlocked

Cause: The recovery key belongs to another drive, or a digit is wrong.

Solution:

1. Compare the **Recovery key ID** in the unlock window with the ID stored with the recovery key.
2. Enter all 48 digits again.

Windows still does not start after the repair

Cause: The cause is not a damaged system file, for example a faulty driver, an update or a hardware defect.

Solution:

1. Read the System log of the target system, see Read the event logs.
2. Remove the last update, see Remove a Windows update.
3. Deactivate the driver or service named in the log, see Deactivate a driver or service.
4. Save important files, see Copy files from a PC that does not start, before you consider restoring an image or reinstalling Windows.

A program is missing from the start menu

Cause: Your license does not include the program, or it was left out in expert mode.

Solution:

1. Check the **Programs** tab in expert mode, see Choose drivers and programs.
2. Create the boot media again.

The screen is shown in a low resolution

Cause: The recovery environment uses a standard graphics driver.

Solution: Select a higher resolution under **Screen**, see Set up network and screen.

Frequently asked questions

Does starting O&O BlueCon change the computer?

No. The recovery environment runs in memory. The Windows installation on the disk changes only when you use a program that changes it. See The recovery environment.

Do I need to install anything on the computer I repair?

No. You install O&O BlueCon on a working PC, which creates the boot media. The computer you repair only starts from them.

Can O&O BlueCon reset the password of a domain account or Microsoft account?

No. O&O UserManager changes local accounts only. You can create a new local administrator account instead. See Reset a password.

Can O&O BlueCon open a BitLocker drive without the recovery key?

No. A BitLocker drive is unlocked only with one of its key protectors, usually the 48-digit recovery key. See Unlock a BitLocker drive.

My computer has no BitLocker password. Why is the drive locked?

The drive is unlocked by the TPM, which releases the key only when the computer starts its own Windows. In O&O BlueCon, enter the 48-digit recovery key instead. If you use a Microsoft account, you find it at aka.ms/myrecoverykey. See Why you need the recovery key.

Does O&O BlueCon work with Secure Boot?

If a computer does not start from the boot media, turn off Secure Boot temporarily and turn it on again afterwards. See Troubleshooting.

Why are my files gone after a restart?

Files saved on drive X: are stored in memory and are lost at restart. Save files on a drive of the computer or on a USB drive. See The recovery environment.

Do I need to create the boot media again after an update?

Yes. Boot media are not updated automatically. Create them again after installing a new version of O&O BlueCon. See Create boot media.

Can I burn the boot media to a CD or DVD?

Yes. Save an **ISO image** and burn it with a burning program. See Create boot media.

Why is a program missing from the start menu?

It is not part of your license, or it was left out in expert mode. See Feature overview.

What's new

O&O BlueCon 25

Recovery environment

- New desktop with launch pad, taskbar and start menu.
- New programs:
- **O&O DiskCommander** replaces O&O FileExplorer.
- **O&O DeskInfo** replaces O&O SystemInfo.
- **O&O CheckAndRepair** checks the component store, the system files and the file system of the installation on the disk; it replaces O&O CheckDisk.
- **O&O RegEditor** replaces the previous registry editor.
- **O&O UpdateManager** replaces O&O UpdateRemover.
- **O&O SafeErase 22**.
- **O&O UserManager** manages local users and groups, in addition to resetting passwords.
- **O&O DriverManager** and **O&O ServiceManager** keep the previous registry file with every change (**Backups…** restores it) and mark drivers and services whose file is missing.
- After a crash of a program, a memory dump can be saved for O&O Support.

Media creator

- Downloads the current Windows recovery environment from Microsoft; no Windows ADK is needed.
- Writes USB drives that start on computers with BIOS and with UEFI firmware. Internal disks and the system disk are never offered as a target.
- New **Programs** tab in expert mode.
- Microsoft .NET 10 Desktop Runtime is the only prerequisite.

Support and more from O&O

This page tells you where to find help with O&O BlueCon, how licensing and updates work, and which other O&O products complement it.

Support

- **This manual:** Troubleshooting lists typical problems with their cause and solution; the FAQ answers common questions.
- **O&O support:** the O&O Software support pages offer further help and a contact form.
- **Product page:** O&O BlueCon on the O&O Software website.

Prepare a support request

Include:

- The O&O BlueCon version from **About**.
- The Windows version of the PC that creates the boot media, and of the computer you repair.
- The manufacturer and model of the computer, or an O&O DeskInfo report (see Show system information).
- The complete error message, or the stop code of a blue screen.
- For problems creating the boot media: the log files from **Advanced options > Log > View log files**.
- For a program that ended unexpectedly: the memory dump (see Crash reports).

Never send BitLocker recovery keys or passwords. O&O Support does not need them.

Licensing and updates

O&O BlueCon is commercial software. A valid license is required to create the boot media; see Install and activate.

To update, install the new version over the existing one and create the boot media again.

More from O&O

Product	Purpose
O&O DiskImage	Backup and recovery of drives and complete systems
O&O Syspectr	Remote monitoring and management of PCs and servers
O&O SafeErase	Secure, unrecoverable deletion of files and drives
O&O Defrag	Storage optimization for PCs and servers
O&O ShutUp10	Control of Windows privacy settings

All products are listed at oo-software.com/en/products.