

## INSTALLATION INFORMATION CONVAL

### SYSTEM REQUIREMENTS

#### PROCESSOR

1-GHz-Processor or higher with 2 or more cores

#### MEMORY

At least 4 GB RAM

#### DISPLAY

1024x768 or higher resolution monitor

#### HARD DISK

Space required on hard disk approx. 500 MB

#### OPERATING SYSTEM

Windows 11 (24H2, 23H2), Windows 10 (22H2) - Windows Server 2025, 2022, 2019, 2016

#### OFFICE INTEGRATION

Microsoft 365, MS Office 2024, 2021, 2019 (32- and 64-bit versions)

### INSTALLATION

Regardless of whether you use a network, a named user, or a local license, you may install the CONVAL program local on each computer or you may use the network installation.

A local installation offers the best performance while a network installation can be updated or maintained easier.

You will need Administrator rights to run the installation.

### LOCAL INSTALLATION

Start the installation procedure for CONVAL with setup.exe and choose **Typical** or **Custom** as setup type.

### INSTALLATION IN A NETWORK

Start the installation procedure for CONVAL with setup.exe and choose Network as setup type.

Besides the CONVAL program the network setup installs a Client Setup in a subfolder of the target folder having the same name.

**You must start the Client Setup on all the computers on which you want to use CONVAL.**

The Client Setup enters settings in the Start menu and installs files in the Windows system folder.

### SILENT SETUP

You may perform the installation also in silent mode. In order to do this you find closer **information** in the download section of our homepage [www.conval.de](http://www.conval.de).

### WORKING IN TEAMS

Regardless of whether you perform a network installation or a local installation, CONVAL can support users working in teams.

In the [Program Options](#) in the [Folders](#) section, you can specify the folder in which the device and substance databases are located, and the folder for the public templates and schemes. With a network installation, these folders were already defined during installation and normally no changes need to be made here. With a local installation, you can specify network paths for shared databases, templates, and schemes.

## REQUIRED ACCESS RIGHTS

CONVAL users require at least read permissions in the database folder. If users are also to be able to execute the automatic update function for device and substance data, or to enter new devices and substance data, they need additional write and execute permissions.

In the folder for public templates and schemes, users should always have both read and write permissions to ensure smooth operation.

## CONVAL LICENSING

[CONVAL can be used in conjunction with a license key only.](#)

If you do not have a valid license and would like to evaluate CONVAL, please feel free to contact the CONVAL Team [info@firstgmbh.de](mailto:info@firstgmbh.de).

CONVAL supports different types of licensing:

- [Network concurrent licenses](#), which can be installed on any server or workstation computer in your company, and which provide the maximum number of simultaneous CONVAL users.
- [Named-user licenses](#), which are provided by F.I.R.S.T. GmbH in the cloud and are associated with a named user.
- [Local, single-user licenses \(no longer available\)](#), which are installed on the PC on which CONVAL is running.

Local licenses are managed by a Sentinel LDK hardware key; for network licenses, software-based licensing is also available as an alternative.

## NETWORK CONCURRENT LICENSES

The CONVAL network license is installed on a license server in your company. The license server can be a Windows workstation or a Windows server and must be integrated into a domain. Please contact our support if you wish to use other operating systems.

Communication with the CONVAL license server (the computer on which the network license is installed) is via the TCP or UDP network protocol. Please make sure that port 1947 for TCP and UDP is not blocked by a firewall and that the service "Sentinel License Manager" is running.

If you are using a network license, you should first install the license manager before installing the CONVAL program. You need administrator rights for installation.

The installation of the CONVAL network license depends on the applied license type.

## SENTINEL HARDWARE KEYS

If you are using a Sentinel hardware key, you must connect it directly to a USB port on the CONVAL server; USB hubs are not supported. The required drivers are installed automatically by Windows Update or can be downloaded from the download area of our homepage [www.conval.de](http://www.conval.de).

## SENTINEL SOFTWARE KEYS

Please note that local CONVAL software license keys on virtual machines are not supported.

If you are using a software license key, you must run the CONVAL License Activation Tool to activate the license. The Activation Tool installs the license manager and guides you to activate the license using your product key.

If you haven't got access to the Activation Tool, please contact the CONVAL team [info@firstgmbh.de](mailto:info@firstgmbh.de).

**Note:** If you want to rename or [change the license server](#), you must use the CONVAL Licensing Tool to transfer the license from the old to the new server instead of installing a new license.

**Note:** If you use a [virtual license](#) server, the CONVAL license is bound to the physical machine on which the virtual machine was running at the time the license was activated. Moving the virtual machine to another hardware or rolling it back can disable the license.

The CONVAL license server supports the following platforms:

## WINDOWS

Windows Insider Preview builds are not supported. The latest service packs and security updates must be installed.

- Windows Server 2016
- Windows Server 2019
- Windows Server IoT 2019
- Windows Server 2022
- Windows Server IoT 2022
- Windows 10 IoT Enterprise 2019 LTSC
- Windows 10 IoT Enterprise 2021 LTSC
- Windows 10 22H2
- Windows 11 23H2, 22H2

## VIRTUAL MACHINES

- Parallels Desktop 18 for Mac
- VMware Workstation 16
- VMware ESXi 6.7, 7.0
- Hyper-V Server 2019 (SL only)
- Xen Project 4.16
- KVM (RHEL 9, Ubuntu 22.04 Server, Debian 11.4)
- Microsoft Azure
- VirtualBox 6.1.x
- Docker (Linux) containers, including under Kubernetes
- LXC containers

## NAMED-USER LICENSES

Named users receive a personal code with which they can activate their computer for the use of CONVAL.

The license is stored on a server in the cloud hosted by F.I.R.S.T. GmbH. Communication with the CONVAL cloud license server is via the TCP or UDP network protocol.

After installing CONVAL on the client computer, please make sure that port 1947 for TCP and UDP is not blocked by a firewall and that the service "Sentinel License Manager" is running.

## LOCAL, SINGLE-USER LICENSES (NO LONGER AVAILABLE)

This information only applies to existing customers, as local licenses are no longer available.

If you use CONVAL with a local license key, a license manager must be installed on your computer. The CONVAL installation asks you for your license and the license key used. Select "Network License" and enter "localhost" as the license server.

The license manager will be installed automatically. For a manual installation you will find the license manager setup in the download section of our homepage [www.conval.de](http://www.conval.de).

## ISSUES WITH CONVAL LICENSE KEYS

If CONVAL is unable to find a license key, even though you have installed everything correctly, you find additional information at [CONVAL Licensing](#).

## COM INTERFACE

CONVAL features direct interfaces that allow it to be used as a COM server under Windows. That allows using the whole functionality of CONVAL by many Windows applications, for example MS Excel in conjunction with VBA, and CONVAL's integration into other products.

CONVAL must be registered as a COM server in the operating system before you can use this interface, however.

It is registered automatically when it is installed; or you can register it manually using the "Repair Registration" command in the Start menu in the CONVAL Group.

In the documentation area you will find a type library and detailed instructions on how to use the COM server.

## TERMINAL SERVER

If you like to install CONVAL in a terminal server environment, you should consider the following:

- If you are using a network license, you should first install the license manager before installing the CONVAL program. You need administrator rights for installation.
- **Note:** The license server cannot be installed in a terminal server session but only on the terminal server itself or on any other server in the network.
- In a terminal server environment CONVAL can be used with a network or named-user license only.
- If you install CONVAL on a terminal server, please select **standard** as type of installation, the type of installation **network** is used for the installation on a network share only.
- All settings in CONVAL (such as search options for the license key) are stored user specific in the Windows registry at `[HKEY_CURRENT_USER\Software\F.I.R.S.T. GmbH\CONVAL 12]`.
- If no user specific entry is present, CONVAL looks for settings in the registry `[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\F.I.R.S.T. GmbH\CONVAL 12]`

A simple option of standardizing settings in CONVAL for all users consists of

- First adapt all settings for one user.
- Close CONVAL.
- Export the registry section of the user to a reg file.

- Change the entry in the reg file from [HKEY\_CURRENT\_USER] to [HKEY\_LOCAL\_MACHINE].
- Finally import the modified reg file.

Templates and schemes of CONVAL can be stored both in a public and in a private section.

You can adjust the folder for the public templates and schemes directly at the installation of CONVAL or later in the program options. The recommended save location is a network share. If you change the folder in the program options, the contained files are not copied. You have to do that manually.

The folder for **public templates** in CONVAL can be redirected with the help of a registration entry:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\F.I.R.S.T. GmbH\CONVAL 11\MainOptions]
"TemplatesPath"="C:\\Users\\Public\\Documents\\F.I.R.S.T. GmbH\\CONVAL 11\\Templates\\"
```

Replace C:\\Users\\Public\\Documents\\F.I.R.S.T. GmbH\\CONVAL 11\\Templates\\ by a commonly used folder, where all users have read and write permissions.

In CONVAL, **private templates** and **print previews** are stored in subfolders of the %AppData% folder:

```
%AppData%\F.I.R.S.T. GmbH\CONVAL 11\Templates
%AppData%\F.I.R.S.T. GmbH\CONVAL 11\Previews.
```

The folder %AppData% used in CONVAL - that is by default C:\\Users\\<user>\\AppData\\Roaming - can be redirected by a registry entry:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\F.I.R.S.T. GmbH\CONVAL 11\MainOptions]
"AppDataPath"="C:\\Appdata"
```

Replace C:\\Appdata by a folder, where the user has read and write privileges.

## SUPPORT

If you have any questions, comments or problems, please either call us up directly or send an e-mail:

**F.I.R.S.T.** Gesellschaft für technisch-wissenschaftliche Softwareanwendungen mbH

P.O. Box 1545, D-42908 Wermelskirchen, Germany

Fon: .....+49 (2196) 88 77 829

Fax: .....+49 (2196) 88 77 849

Internet: ..... [www.FIRSTGmbH.com](http://www.FIRSTGmbH.com)

..... [www.CONVAL.de](http://www.CONVAL.de)

E-Mail: ..... [support@FIRSTGmbH.de](mailto:support@FIRSTGmbH.de)