



# HiCAD

UNLIMITED CAD PERFORMANCE DEVELOPED BY ISD

## Installation Notes

Version 2020

HiCAD and HELIOS

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# Getting Started

## Important Notes!

### Hardware Exchange

If you use local HiCAD/HELiOS licenses and want to exchange any hardware components, modify the partitioning of, or re-install the operating system, you need to revoke the existing license on the HiCAD/HELiOS workstation first, and request, using the new hardware or modified configuration, a new license key (further information on the procedure can be found in the software documentation).

If a revocation is technically possible, but will not be performed, the ISD reserves the right to charge costs in an appropriate amount for the reissuing of the license. If the license will not be revoked, or if such revocation is no longer technically possible, the ISD may request proof that the unrevoked license is no longer utilisable; in case of failure to produce such proof, the ISD reserves the right to refuse the transfer of the license to a new hardware.

### Discontinuation of Windows® 7

Microsoft will cease the support for Windows by January 2020. For compatibility reasons HiCAD 2020 SP1 and HELiOS 2020 SP2 will thus be the last versions of our CAD and PDM systems which support Windows ® 7. The corresponding server operating systems (Windows Server 2008 R2 or older) will then no longer be supported either.

### Discontinuation of HELiOS 32-Bit

As of HELiOS 2022 (Version number 2700.0) there will no longer be a 32-Bit version available for HELiOS. However, the interface to 32-Bit applications such as Office will still be possible and is not affected by the discontinuation of the 32-Bit installation of HELiOS.

### Discontinuation of Oracle

With HELiOS 2022 (version 2700) onwards, Oracle is no longer supported as a database platform.

### Discontinuation of Microsoft Office 2010 interface

From HELiOS 2021 (Version number 2600.0) on, we will no longer support Office 2010 in the HELiOS – Office interface.

### Discontinuation of "old" OpenGL versions

From HiCAD 2021 on, only OpenGL version 4.3 is used in all HiCAD modules. Until now this was only the case with the module **HiCAD Point Cloud**. This means that HiCAD 2021 can no longer be run on computers without a separate graphics card. Further information can be found in the HiCAD 2020 News.

### Discontinuation of "old" HiCAD itemization

As of HiCAD 2019 the "old" itemisation, i.e. the itemisation that was used up to HiCAD 2017, will only be available for model drawings that were already itemized with these functions. From HiCAD 2021 onwards, only the "new" itemization will be supported.

### Data compatibility

HiCAD 2020 uses a different data format, which means that .SZA files saved with HiCAD 2020 can no longer be loaded into older HiCAD versions.

When performing a HELiOS update, the update start mask shows you the HELiOS subversion, which needs to match the existing database. If this is not the case, only an error message will appear when you start HELiOS. To update the database schema, use the program HeliosDbUpdate.exe. If the database schema requires an update, you can **no longer access** the database with older HELiOS versions. Therefore, all workstations accessing the database need to be readjusted accordingly at the same time.

### New Mask Editor in HELiOS 2020

Due to the complete revision of the Mask Editor in HELiOS 2020, the previous mask format has been changed from .MSK to .XML. In addition, mask files are now managed outside the installation directory, resulting in some changes in the system architecture that Administrators must consider:

- The masks of older versions (before V 2500.0) that were previously stored in the SYS directory of the installation are automatically converted to the new XML format in case of an update installation and stored at **%Programdata%**.
- The new masks at **%Programdata%** should not be overwritten under any circumstances, as these represent the "delivery status", which will be updated by later update installations. If masks are edited and changed with the Mask Editor, you must store and call them at **%Appdata%**.

### Updating the HELiOS-Inventor interface

For an update of the Inventor interface from an older HELiOS version to HELiOS 2020 (Version 2500) or higher (and the corresponding update of the database schema) the following changes have to be considered:

1. The structure identifiers for Inventor parts must be updated.
2. The standard part and semi-finished product identifiers are changed to a document-based (instead of article-based) management.

An update installation can only be carried out after an appropriate preparation of the migration.

In case of an update, please contact the Consulting team of the ISD Group. New installations of HELiOS 2020 and the associated database are not affected.

### Updating the HELiOS-SOLIDWORKS interface

For an update of the SOLIDWORKS interface from an older HELiOS version to HELiOS 2020 (Version 2500) or higher (and the corresponding update of the database schema) the following changes have to be considered:

Since a migration of the configuration IDs is performed during the update, an update installation can only be performed after the migration has been prepared accordingly. In the event of an update, contact the Consulting team of the ISD Group. New installations of HELiOS 2020 and the associated database are not affected.

### Important update notes for attribute mapping in title blocks

Until HELiOS 2019, attribute mapping at SOLIDWORKS was done by the following files:

- heliossw\_titleblock.dat (attributes for the title block),
- helios\_cs\_global\_config.dat (attribute mapping/presetting in both directions),
- sw\_comp\_name.dat (display in the model tree in CAD).

As of HELiOS 2020 (Version 2500.0), the mapping must be set up again manually. No migration tools exist.

Up to HELiOS 2019, the attribute for the title block in AutoCAD was created using the following files:

- heliossac\_titleblock.dat,
- helacblock.xml

As of HELiOS 2020 (version 2500.0), the mapping must also be set up manually here.

In case of an update, please contact the Consulting team of the ISD Group.

### Important notes for administrators during a HELiOS update installation working with the HELiOS integration for Inventor, AutoCAD and SOLIDWORKS!

When updating the database to HELiOS 2019 Service Pack 2 or higher, the old workspace is checked for documents in progress. These are documents with the pen symbol in the respective (old) workspace dialog, or entries of locked documents in the Workspace Manager from HELiOS Desktop (on the right hand side).

Should the check find relevant documents, the following message appears:

The update of the database cannot be performed because there are still locked documents in old local work areas which will not be supported in the future. After this update, only work areas with new administration are supported and automatic migration is not possible. More information can be found here.



### HELiOS Data base schema

As existing datasets with non-compliant conditions may cause conflicts during the central update process of the HELiOS delivery database, you should consider the following:

1. **Do a database backup:** You should make sure that a backup of your HELiOS database has been created before the update. This can be done with the HELiOS Database Creator or via your SQL server application. Please contact the ISD hotline if you have any questions or need support for your individual system architecture.
2. **The log file of the update:** If any conflicts occur during the update, they are traced in the log file **HeliosDbUpdate.txt** (in the system path %appdata%\ISD Software and Systems\HeliosDbUpdate\). Have this file ready if you contact the ISD hotline for troubleshooting and successful updates.

### Operating system

We recommend deactivating local licenses and network licenses before performing an update/upgrade of the operating system (e.g. from Windows 8 to Windows 10), and activating them again after successful update/upgrade of the operating system.

### New HiCAD module structure

The modules HiCAD ALUCOBOND® exclusiv Standard and HiCAD ALUCOBOND® exclusiv Premium will no longer be available from HiCAD 2019 onwards. They have been replaced with the two modules HiCAD ALUCOBOND® Suite Standard and HiCAD ALUCOBOND® Suite Premium (formerly HiCAD ALUCOBOND® hybrid Standard and HiCAD ALUCOBOND® hybrid Premium).

The Steel-/Metal Engineering module has been discontinued with the release of HiCAD 2018 (Version 2300). It has been replaced with the two modules HiCAD Steel Engineering and HiCAD Metal Engineering.

### New HELiOS Module structure

From HELiOS 2018 (Version 2300) onwards the module structure has been changed. Also, the interfaces between HELiOS and the different CAD and electrical engineering systems are now licensed separately.

### Discontinuation of the old figure format (FIG)

Since HiCAD 2017 we have been supporting FGA as figure format (before FIG). Starting with HELiOS 2021 (Version 2600.0), we assume that the figures stored in HELiOS have been converted to the new format, or convert the still existing figures automatically as part of the database sub-version update to Version 2600.0.

Please use only this new .FGA format for conversion of existing 2-D .FIG files! For this purpose, use the new Converter\_FIG\_To\_FGA.exe tool in the HiCAD\exe directory.

When updating from HiCAD 2016 or older, all standardly supplied 2-D parts (e.g. drawing frames) in the different installation directories will be converted from FIG to FGA by default during the installation. The data in the original state will be saved in a folder (resp. a ZIP archive) in the scene and catalogue directory. The converted files will be documented in a LOG file.

When creating an interface between HiCAD and HELiOS, you will be prompted to update the databases after a new installation or an update installation. The search for and management of 2-D parts will only be possible after conversion of the database and the existing .FIG files with the above mentioned tool.

## System Requirements

- HiCAD
  - Compatibility Matrix for Interfaced Applications (HiCAD)
- HiCAD Spooler
- HiCAD with Pointcloud
- HELiOS Database Server
- HELiOS Vault Server
- HELiOS Client
  - Compatibility Matrix for Interfaced Applications (HELiOS)
- HELiOS Spooler
- License Server
- HELiOS SmartSearch Server
- HELiOS Application Server
- Operation in Virtual Environments
- Further Requirements for Installation

## System Requirements for HiCAD

It is possible to obtain our software with workstations and monitors as end-to-end solution. Thus, it is ensured that with the right configuration you get the most out of our software. As a matter of course, we undertake site installation of the software and customize these in accordance with heterogeneous system environments of common products. No matter how you decide: It is up to you which hardware components are to be used.

Minimum hardware requirements *	
Computer	Generally, all hardware can be used enacting current drivers of applicable OS. Please note that for instance the graphic-card drivers support OpenGL command sequence. Internet connection and adrive for the installation medium.
Processor (CPU)	Intel or AMD processor with SSE2 support
Main memory	4 GB RAM To achieve optimal performance for large assemblies, the system should possess significantly more main memory than is considered sufficient for HiCAD at first glance. This enables the hard disk accessing operations Buffer memory, Undo and Switch drawing to be performed up to 4 times faster.
Hard disk	approx. 10 GB free disk space
Graphics card	Fully OpenGL 2.0 capable graphics card with at least 128 MB memory. You can use the OpenGLCapabilityTester to check whether the OpenGL capabilities of your computer are sufficient for HiCAD.
Screen resolution	1280 x 1024
Other	For the output of reports, e.g. Sheet Metal cost calculations, you require Microsoft Office Version 2010 or higher


There are no further requirements for the installation of the **HiCAD Version with License Management**; the legal licensing check is performed during runtime.

Examples of suitable hardware components for HiCAD *	
Computer:	Fujitsu Desktop ESPRIMO P958/power
Processor (CPU):	Intel® Core™ i7-9700 Processor, 12 MB, 3.00 GHz bis 4.7 GHz or equivalent processor  SingleCore Benchmarks that can be found on various websites may help you with the choice of the processor.  Example: <a href="https://www.cpubenchmark.net/singleThread.html">https://www.cpubenchmark.net/singleThread.html</a>
Main memory:	4 x 8 GB, DDR4, 2.400 MHz (inkl. ECC) If you work with very large CAD drawings you should use computers with more RAM.
Hard disk:	1 x 512 GB, SSD M.2, 2,5 inches
Graphics card:	NVIDIA Quadro P1000 (4 GB) oder AMD WX3100 (4 GB)

Examples of suitable hardware components for HiCAD *	
Screen resolution:	1920x1080 Full HD When working with a high screen resolution, resizing text ("Enlarge Text") is not recommended.
Operating system:	Microsoft Windows 10 (64Bit)
Other:	For the output of reports, e.g. Sheet Metal cost calculations, you require Microsoft Office Version 2010 or higher.

\* When using the HiCAD Point Cloud module, you will need a significantly higher hardware configuration. This also depends on the size of the project.

The interfaces that are available for the HELiOS Client are listed in a Compatibility Matrix.

 **Please note:**

- For the connection to Sentinel License Server, the Firewall of the UDP Port 5093 License Server must be released for in- and outgoing connections; for the Windows Firewall, the port release is executed automatically by activating the respective option in the installation program of the License Server.
- If you use network licenses, use the operating systems indicated in the System Requirements for the License Server.
- Internet access is necessary for the computer/server via which the licenses are managed!
- In addition, you need one of the database systems listed under Hardware Requirements for the HELiOS Database Server when using HELiOS.

### Compatibility Matrix for Interfaces Applications (HiCAD)

Listed below you find an overview of the interfaces that are available for HiCAD:

	HiCAD 2020	HiCAD 2019	HiCAD 2018
Operating system			
Windows 10, 64 Bit	✓	✓	✓
Windows 8.1, 64 Bit	✓	✓	✓
Windows 8, 64 Bit	✓	✓	✓
Windows 7, 64 Bit	✓	✓	✓
PDM system			
HELiOS 2020	✓	✓	✓
HELiOS 2019	✗	✓	✓
HELiOS 2018	✗	✗	✓
HELiOS 2017 or older	✗	✗	✗
Interfaces			

	HiCAD 2020	HiCAD 2019	HiCAD 2018
LogiKal 11	✓	✓	✓
LogiKal 10	✓	✓	✓
LogiKal 9	✗	✗	✗
PartSolutions 8 to 11	✓	✓	✓
KISSoft 03/2017 up to 03/2019	✓	✓	✓
CADClick 3.0	✓	✓	✓
Microsoft Office *			
* Limitations may occur in conjunction with VBA.			
Office 2019	✓	✓	✓
Office 2016	✓	✓	✓
Office 2013	✓	✓	✓
Office 2010	✓	✓	✓
Browsers			
Internet Explorer 9 - 11	✓	✓	✓
Edge	✓	✓	✓
Mozilla Firefox	✓	✓	✓
Google Chrome	✓	✓	✓

## System Requirements for the HiCAD Spooler

The system requirements for Spooler are identical to those for a normal HiCAD Client (please see System Requirements for HiCAD). The RAM should be at least as large as the RAM for the existing HiCAD Clients. The reason for this is that the Spooler must be able to perform, besides automation tasks, various other tasks such as the conversion of HiCAD drawings (to 3D-PDF or similar). The HiCAD Spooler runs on a separate Plot Server System.

In a combined operation of HiCAD and HELiOS, the HiCAD Spooler is driven by HELiOS Spooler. You can find further instructions for installing HELiOS Spooler running on the same system as the HiCAD Spooler in HELiOS Help.

Besides the Client operating systems Windows 7, 8 and 10 you can also use the Server operating systems Windows Server 2008 or Windows Server 2012. Whether a Server operating system needs to be used depends on the licensing conditions for the Microsoft operating system that you use. The decisive factor is the number of permitted simultaneous device connections.

Windows 7, 8 and 10 allow 20 simultaneous connections. This will be sufficient for 20 Print Clients, if all of them are actually running at the same time. Please note however that each connection from a non-HiCAD/HELiOS workstation will reduce this number.



**Please note:**

The HiCAD Spooler runs on a separate Plot Server system.

## System Requirements for Point Clouds

The system requirements depend on the project size. For a project with 26 scan positions, a computer with Intel Core i7-6920HQ CPU @ 2.90 GHz (4 physical cores), 32 GB RAM, NVIDIA Quadro M2000 (4 GB memory) and 1 TB SSD works adequately.

Recommended hardware equipment when using the HiCAD Point Cloud module	
Processor (CPU):	Intel Core i7/i9/Xeon with more than 3 GHz, 8 physical cores or AMD equivalent
Main memory:	64 GB RAM
Hard disk:	1 TB Solid State Drive + regular HDD
Graphics card:	Dedicated, i.e. separately integrated, graphics card, OpenGL 4.3 or higher, at least 16 GB RAM
Operating system:	Microsoft Windows 10 (64Bit)

**Please note:**

Please note that the import of point clouds requires more RAM than using the point cloud in HiCAD.

## System Requirements for the HELiOS Database Server

The requirements with regard to the hardware primarily depend on the specifications given by the respective RDBMS supplier (Microsoft / Oracle). Currently, following operating systems are supported:

	HELIOS 2020	HELIOS 2019	HELIOS 2018
Microsoft SQL Server 2019	✓	✓	✓
Microsoft SQL Server 2017	✓	✓	✓
Microsoft SQL Server 2016	✓	✓	✓
Microsoft SQL Server 2014	✓	✓	✓
Microsoft SQL Server 2012	✓	✓	✓
Microsoft SQL Server 2008	✓	✓	✓
Microsoft SQL Server 2005	✗	✗	✗
Oracle* Database Server 12c	✓	✓	✓
Oracle* Database Server 11g R2	✓	✓	✓
Oracle* Database Server 11g R1	✓	✓	✓
Oracle* Database Server 10g	✗	✗	✗

\*With HELiOS 2022 (version 2700) onwards, Oracle is no longer supported as a database platform.

In addition, the following minimum requirements should be guaranteed for the main memory and hard disk:

	HELIOS 2020	HELIOS 2019	HELIOS 2018
Main memory	Additionally at least 4 GB main memory. With an increasing database size the working memory should be enlarged in order to guarantee optimal performance.		
Hard disk	Additionally at least 10 GB hard disk memory. The actual demand depends on the size of the database.		



**Please note:**

- The use of virtual servers is essentially possible. Please consider to grant sufficient performance within the virtual environment.
- On the database server, HELiOS data base should be imported beforehand, for example via HELiOS Database Creator, so that clients can connect with the database.



- SQL Server Standard vs. SQL Server Express

As of late, the productive use of SQL Server Express is possible. Please note that SQL Express has limited storage size (10 GB) for each data base and provides weaker performance than SQL Standard, especially on powerful hardware. If well-equipped hardware is used for the server (multiple processors and plenty of RAM), the SQL server thwarts the performance again. On regular desktop hardware the difference between SQL Express and SQL Standard is smaller due to the accordance of express limits and system.

## System Requirements for the HELiOS Vault Server

The HELiOS Vault Server can either be installed as 32-Bit or 64-Bit application. The minimum requirements are as follows:

	HELiOS 2020	HELiOS 2019	HELiOS 2018
Processor (CPU)	X86 or AMD64 Architecture with SSE2 Support		
Main memory	Additionally at least 1 GB main memory		
Hard disk	The required hard disk space depends on the volume of arising data use (files). A safety margin should be considered.		
Operating system	Microsoft Windows 7 or Microsoft Windows Server 2008 R2 or higher		



### Please note:

- If you work with only interfaces to HiCAD and/or Microsoft Office, the use of HELiOS Vault Servers is optional. Other interfaces must be used in conjunction with the HELiOS Vault Server.
- The needed hard disk space can also be distributed on multiple volumes.
- We recommend the use of RAIDs in order to ensure failsafe performance.

## System Requirements for the HELiOS Client

The HELiOS Desktop (Client) can either be installed as 32-Bit or 64-Bit application. The minimum requirements are as follows:

	HELiOS 2020	HELiOS 2019	HELiOS 2018
Processor (CPU)	X86 or AMD64 Architecture with SSE2 Support		
Main memory	Additionally at least 2 GB main memory		
Hard disk	Additionally at least 2 GB free hard disk memory		
Operating system	Microsoft Windows 7 or Microsoft Windows Server 2008 R2 or higher		

The interfaces that are available for the HELiOS Client are listed in a Compatibility Matrix.




### Please note:

- When interfacing the HELiOS Desktop with other applications, for instance with a CAD system or Office product, please consider the minimum requirements of each system manufacturer.
- If you want to use an integrated viewer, the hardware requirements of respective viewer manufacturer must be considered.
- Before you can use the HELiOS Client you require a HELiOS Database Server as well as an appropriately configured ODBC connection.  
Documents (in .pdf format) describing the installation procedure for the database system and the import and export of the database can be found in the Wiki.
- Current information for hardware requirements can be found via [www.isdgroup.com](http://www.isdgroup.com) at Support.

## Compatibility Matrix for Interfaced Applications (HELiOS)

Below you find a list of possible interfaces for the HELiOS Client:

	HELiOS 2020	HELiOS 2019	HELiOS 2018
CAD system			
HiCAD 2020	✓	✗	✗
HiCAD 2019	✓	✓	✗
HiCAD 2018	✓	✓	✓
HiCAD 2017	✗	✓	✓
HiCAD 2016	✗	✗	✓
HiCAD 2015 or older	✗	✗	✗
AutoCAD 2021	✓ (as of SP1)	✗	✗
AutoCAD 2020	✓	✓ (as of SP1)	✗

	HELIOS 2020	HELIOS 2019	HELIOS 2018
AutoCAD 2019	✓	✓	✓ (as of SP2)
AutoCAD 2018	✓	✓	✓
AutoCAD 2017	✓	✓	✓
AutoCAD 2016	✓	✓	✓
AutoCAD 2015	✗	✓	✓
AutoCAD 2014	✗	✓	✓
AutoCAD 2013 or older	✗	✗	✗
AutoCAD Mechanical 2021	✓ (as of SP1)	✗	✗
AutoCAD Mechanical 2020	✓	✓ (as of SP1)	✗
AutoCAD Mechanical 2019	✓	✓	✓ (as of SP2)
AutoCAD Mechanical 2018	✓	✓	✓
<p> <b>Important:</b></p> <p>*As of Inventor version 2021.1  (or newer) can be used from HELiOS Version 2502.3 or 2600.1. The reason for this is the bug in Inventor described here.</p>			
Inventor 2021*	✓ (as of SP1)	✗	✗
Inventor 2020	✓	✓ (as of SP1)	✗
Inventor 2019	✓	✓	✓ (as of SP1)
Inventor 2018	✓	✓	✓
Inventor 2017	✓	✓	✓
Inventor 2016	✓	✓	✓
Inventor 2015	✗	✓	✓
Inventor 2014	✗	✓	✓
Inventor 2013 or older	✗	✗	✗
Navisworks 2021	✓ (as of SP1)	✗	✗

	HELiOS 2020	HELiOS 2019	HELiOS 2018
Navisworks 2020	✓	✓ (as of SP1)	✗
Navisworks 2016 - 2019	✓	✓	✓ (as of SP1)
Navisworks 2015	✗	✓	✓ (as of SP1)
SOLIDWORKS 2020	✓	✗	✗
SOLIDWORKS 2019	✓	✗	✓ (as of SP2)
SOLIDWORKS 2018	✓	✗	✓
SOLIDWORKS 2017	✓	✗	✓
SOLIDWORKS 2016	✓	✗	✓
SOLIDWORKS 2015	✗	✗	✓
SOLIDWORKS 2014	✗	✗	✓
SOLIDWORKS 2013 or older	✗	✗	✗
CAE-SYSTEM			
EPLAN Electric P8 Version 2.8	✓	✓ (as of SP1)	✗
EPLAN Electric P8 Version 2.7	✓	✓	✓
EPLAN Electric P8 Version 2.6	✓	✓	✓
EPLAN Electric P8 Version 2.5	✓	✓	✓
EPLAN Electric P8 Version 2.4	✓	✓	✓
Zuken E3 Version 2019	✓	✓ (as of SP2)	✗
OFFICE			
Office 2019	✓	✓ (as of SP1)	✗
Office 2016	✓	✓	✓
Office 2013	✓	✓	✓
Office 2010	✓	✓	✓
Office 2007 or older	✗	✗	✗

The ✗ symbol does not always mean that the respective product is not compatible. It can also mean that the interactions between this product and the HELiOS Client have not been sufficiently tested by the ISD yet.

## System Requirements for the HELiOS Spooler

Generally, the HELiOS Spooler is a 64 Bit application. The main memory should be at least as large as the main memory for the utilized Client systems. This ensures that all data to be processed by the HELiOS Spooler (i.e. the data transmitted from the Client systems to the HELiOS Spooler can be handled successfully.

	HELiOS 2020	HELiOS 2019	HELiOS 2018
Processor (CPU)	AMD64 Architecture with SSE2 support		
Main memory	Additionally at least 2 GB main memory		
Hard disk	Additionally at least 4 GB free hard disk memory		
Operating system	Microsoft Windows 7 or Microsoft Windows Server 2008 R2 or higher		



### Please note:

- The HELiOS Spooler runs on a separate Plot Server system. It is not possible to install the HELiOS Spooler together with the HELiOS Desktop on the same system! Reasons for this are, for example, possible difficulties with the Office interface, since both the HELiOS Desktop and the HELiOS Spooler install Word and Excel customizations. It is also not recommended to use the system on which the HELiOS Spooler is running as an occasional workstation. This is partly because it is assumed that the HELiOS Spooler is the only instance of the system that starts print jobs.
- The HELiOS Spooler requires locally installed CAD, electrical engineering or Office applications for that plot and conversion orders are carried out. Please note that the use of these applications requires respective licenses and that the hardware requirements of each system supplier must be considered as well.
- The main memory should be at least dimensioned as large as the main memory of the client system deployed. Thus it is guaranteed that the data (which is transferred from the client systems to HELiOS Spooler) can be processed accordingly.
- Besides the client operating systems for Windows, the above mentioned server operating systems can be used as well. It depends on the license terms for the Microsoft OS used by your company whether a server operating system can be used or not. Here, the number of permitted simultaneous connections is deciding here.  
As of Windows 7, 20 simultaneous logins are approved. In this case, you need to assure that apart from the current logins sufficient logins are available for each Client computer's Print Client.

## System Requirements for the License Server

We use the Software Sentinel RMS© from gemalto© for licensing. The license server is in principal a 32 Bit application.

The minimum requirement for running a license server is as follows:

	HiCAD/HELiOS 2020	HiCAD/HELiOS 2019	HiCAD/HELiOS 2018
Processor (CPU)	X86 or AMD64 Architecture. Recommended: 2 GHz Processor		
Main memory	Additionally at least 1 GB main memory		
Hard disk	Additionally at least 2 GB free hard disk memory		
Operating system	Microsoft Windows 7 or Microsoft Windows Server 2008 or higher		



### Please note:

- The license server need not be installed on a separate server or server operating system.
- A static IP address is required for the correct operation of a license server. When using a virtual server, a static MAC address is required.
- The license server must not be installed on the same computer with HELiOS Desktop, because both products share system information with regards to the licensing.
- Internet access is needed for the license server due to activation and deactivation.

## System Requirements for the HELiOS SmartSearch Server

See hardware requirements for the HELiOS Vault Server.



## System Requirements for the HELiOS Application Server

Please contact our consulting in terms of hardware requirements and installation of HELiOS Application Server.

## Operation in Virtual Environments

### HELiOS Client

Generally, the HELiOS Client can be operated on Virtual Machines (VM). If you use integrated viewers, the hardware requirements of the respective viewer manufacturer must be considered.

The HELiOS Client can also be used as a terminal application.

### HELiOS Spooler

Generally, the HELiOS Spooler can be operated on Virtual Machines (VM). However, limitations may occur with regard to simultaneously installed CAD system, electrical engineering software or Office applications.

With regard to graphics functionality, performance and integration of printers, too, limitations may occur in virtual environments.

### License Server

The license management system based on Sentinel RMS© by the company gemalto© can, generally, also be used in virtual environments.

### Network licenses on Virtual Machines (VM)

If you want to use/activate/deactivate the network licenses on virtual machines, please observe the following points:

- A static MAC address is required
- A static IP address is recommended or required when using Commuter Licenses
- Before copying or changing a virtual machine, deactivate the network licenses, since the UUID (Universal Unique Identifier) of the VM will change due to the copying process, and cannot be deactivated afterwards any more. This also applies to the starting of the VM on a different host.

## Further Requirements for Installation

- **Microsoft .NET Framework** and **Visual C++ Runtime Libraries** need to be installed on the computer before HiCAD/HELiOS can be used; these packages will be installed as part of the HiCAD/HELiOS installation if required.
- The graphics card must support Open GL 2.0 or higher. If the hardware or driver does not support this standard, there will be shown a warning message when installing HiCAD, and a compatibility mode will be used (with low graphic performance).
- To be able to work with HELiOS, a database system must be available that has been prepared for HELiOS. For this you require
  - A Microsoft SQL Database Management system on your Server,
  - A HELiOS database imported with the **HELiOS Database Creator** and
  - An ODBC connection on the Clients.

Documents (in .pdf format) describing the installation procedure for the database system and the import and export of the database can be found in the Wiki.

Current information on system requirements can also be found on the Internet at <https://www.isdgroup.com> at Support.

# Installation

The installation medium (e.g. DVD or ISO file) contains the installation files for:

- HiCAD
- HiCAD Online Help
- HiCAD Viewer
- HiCAD Spooler
- HELiOS Database Creator (required when creating a HELiOS database for the first time, and for importing or exporting an existing database)
- HELiOS Vault Server
- HELiOS Client (HELiOS Desktop, Standalone)
- HELiOS Spooler
- HELiOS SmartSearch Server
- Trial Edition (Demo version)
- Education Edition (for students)
- Silent Installation
- Postscript printer driver (required for the output of multiple views in a PDF file)

## Important note on the scope of installed modules!

The scope of modules that will be installed depends on the product that was purchased. This means that not all modules described in the installation manual may be included in your software version.

The DVD has been developed for Windows operating systems. When you insert the DVD, the HiCAD/HELiOS installation wizard will be started automatically.

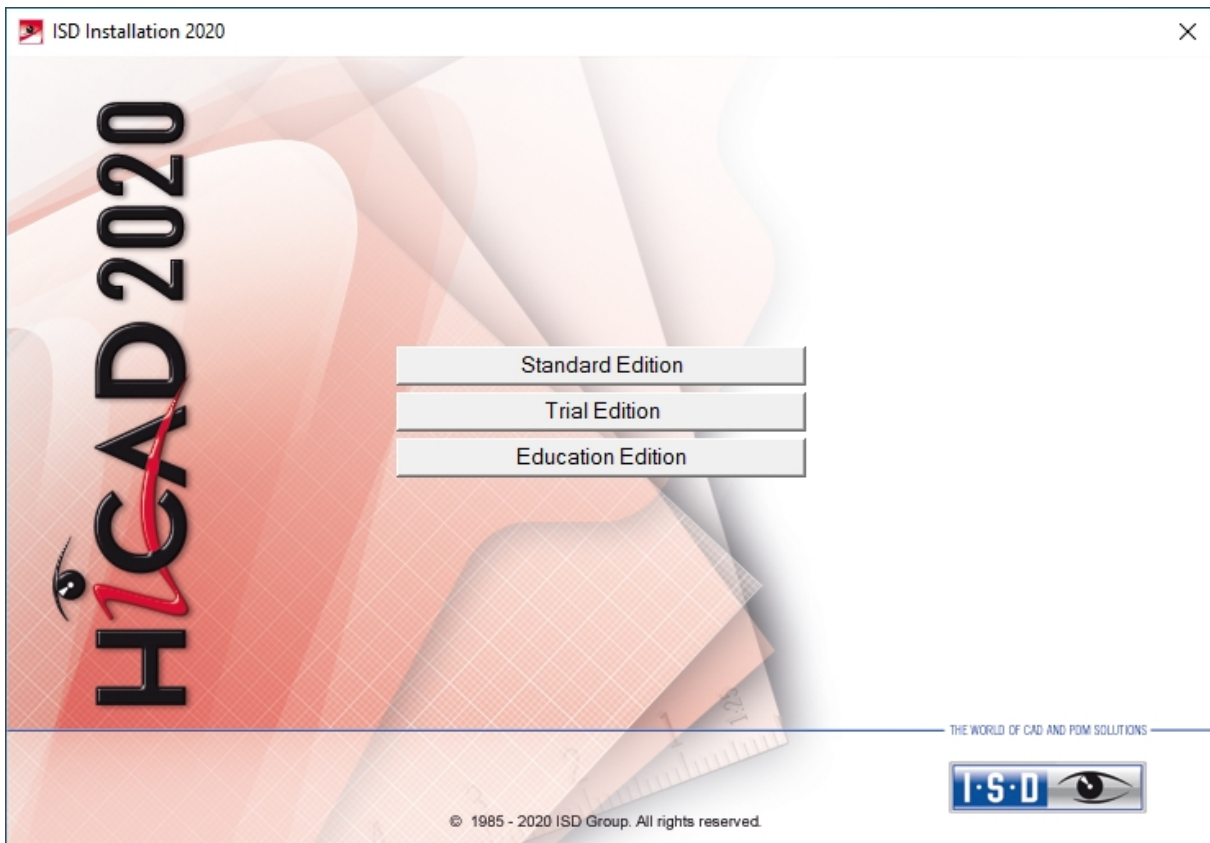
If the Autostart function has been deactivated in the operating system, or if you use an ISO file for the installation, it is mandatory for the installation of HiCAD to start the **setup.exe** file from the root directory of the installation medium; only in this way it is ensured that the version will recognize the operating system, and that the matching HiCAD-/HELiOS version will be installed.



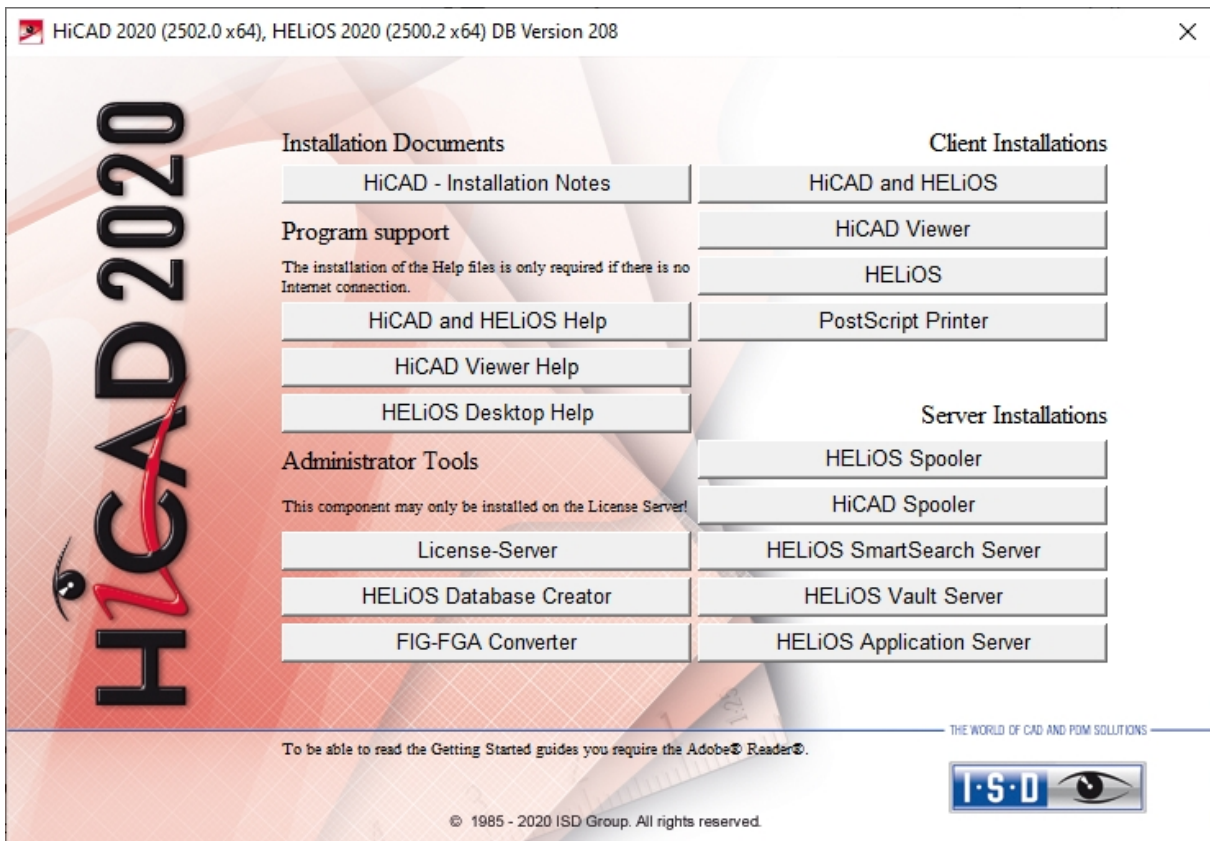
### Please note:

- The HiCAD-/HELiOS version must be installed on the hard disk on your computer; a start from the DVD is not possible.
- You can conveniently download the current HiCAD/HELiOS version in the Download Area of the ISD Wiki.

After running the **setup.exe** file, the following dialogue will be displayed:



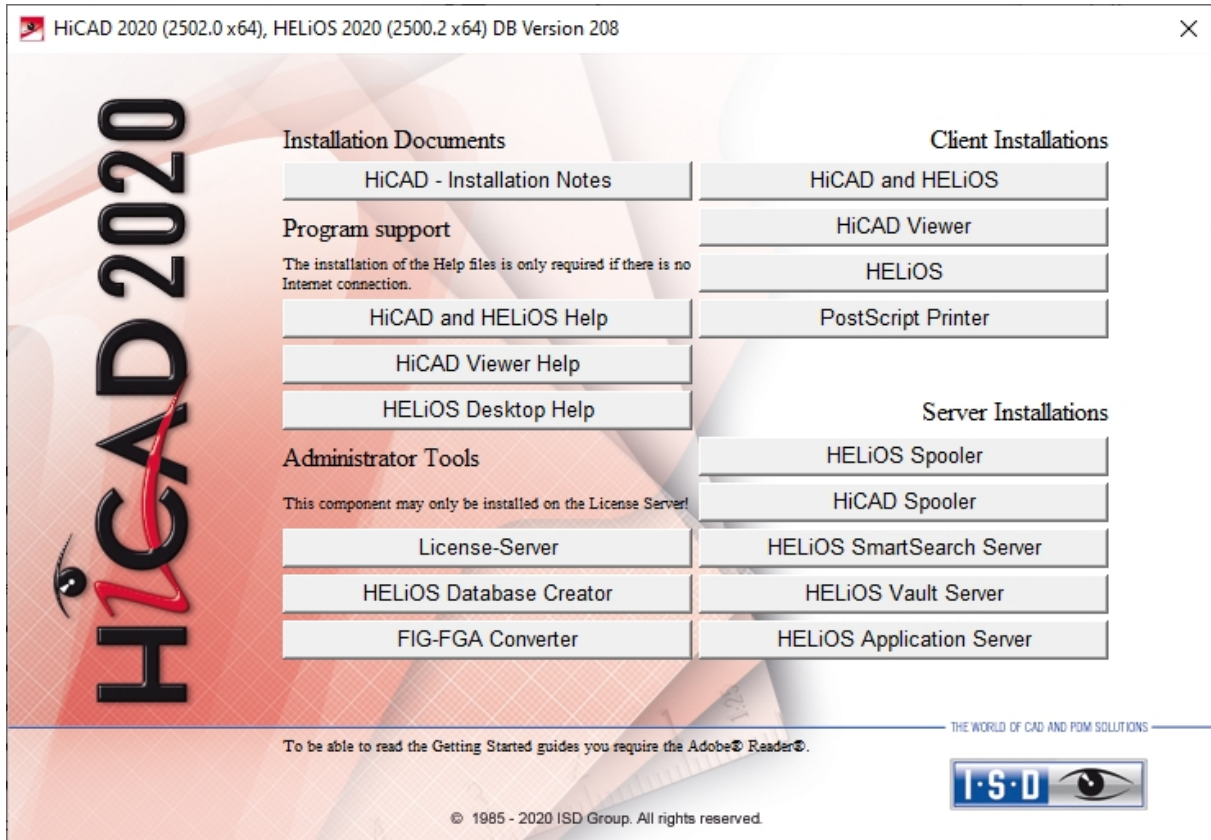
Click on the **Standard Edition** button. This will open the following selection mask:



Leave this selection mask open, so that you can select the desired components one after the other.

## Installation von HiCAD

To install HiCAD, start Windows. If Windows has already been started, close all other applications and start the installation wizard. In the installation wizard, click on the **Standard Edition** button. This will open the following selection mask. Leave this selection mask open, so that you can select the desired components one after the other.

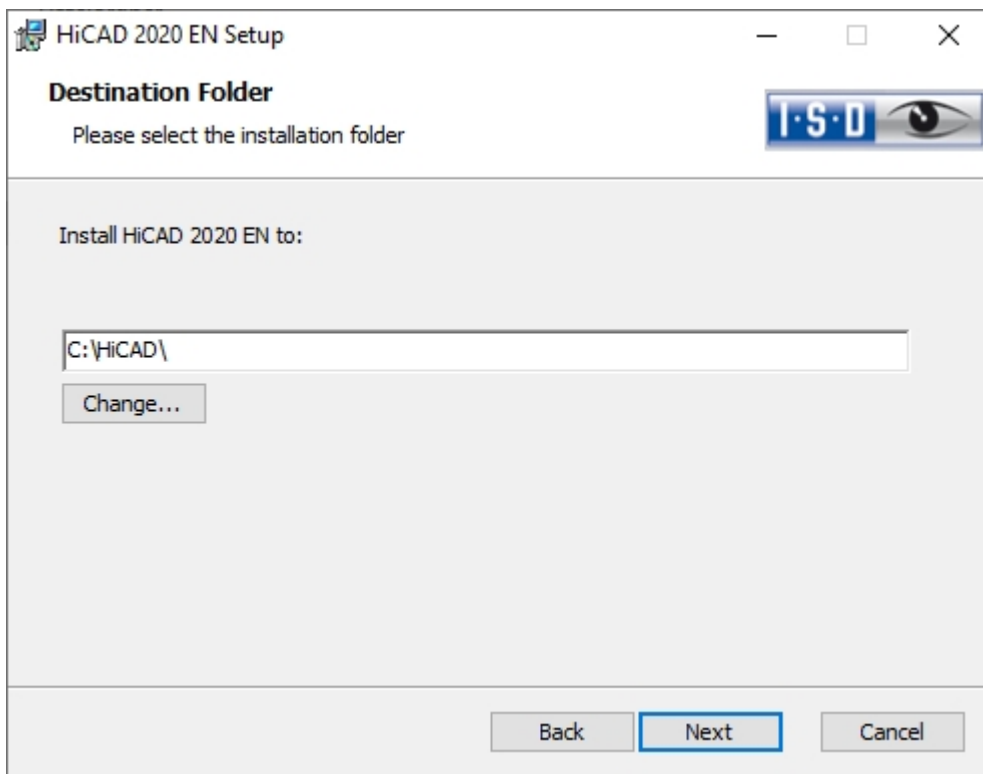


Click on the **HiCAD and HELiOS** button to start the installation.

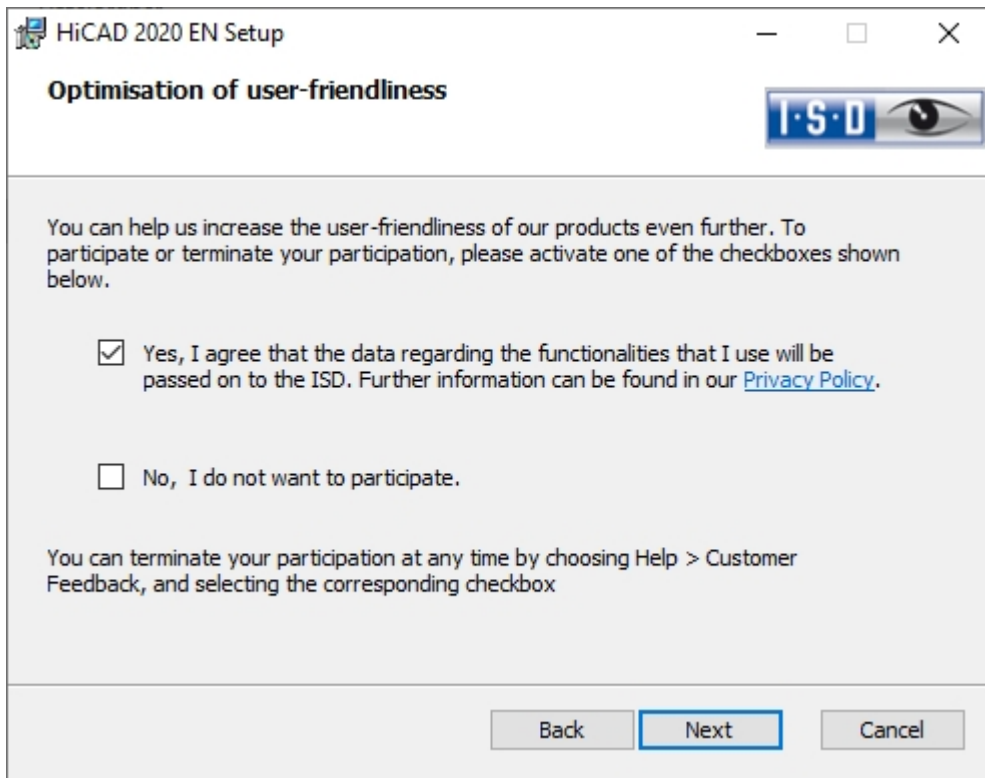
Before using HiCAD/HELiOS, **Microsoft .NET Framework** and the **Visual C++ Runtime Libraries** must have been installed on the computer; these packages will be installed as part of the installation if required.



Please read this information carefully.



Select an installation directory.



You can help us increase the user-friendliness of our products even further. To participate or terminate your participation, please activate the corresponding checkbox.

In the dialogue window, our notice on collection of data for constant GUI optimization can be opened.

You can terminate your participation at any time by choosing **Help > Customer Feedback**, and activating the corresponding checkbox.



### Data Protection notice: Collection of Data for Constant GUI Optimisation

You can help us increase the user-friendliness of our products even further. If you participate, the ISD will collect information on your use of our software, in order to detect trends and use patterns. This information will then be used for a constant optimisation of our user interface, with the aim to make the operation of our software as convenient and efficient as possible for our users.

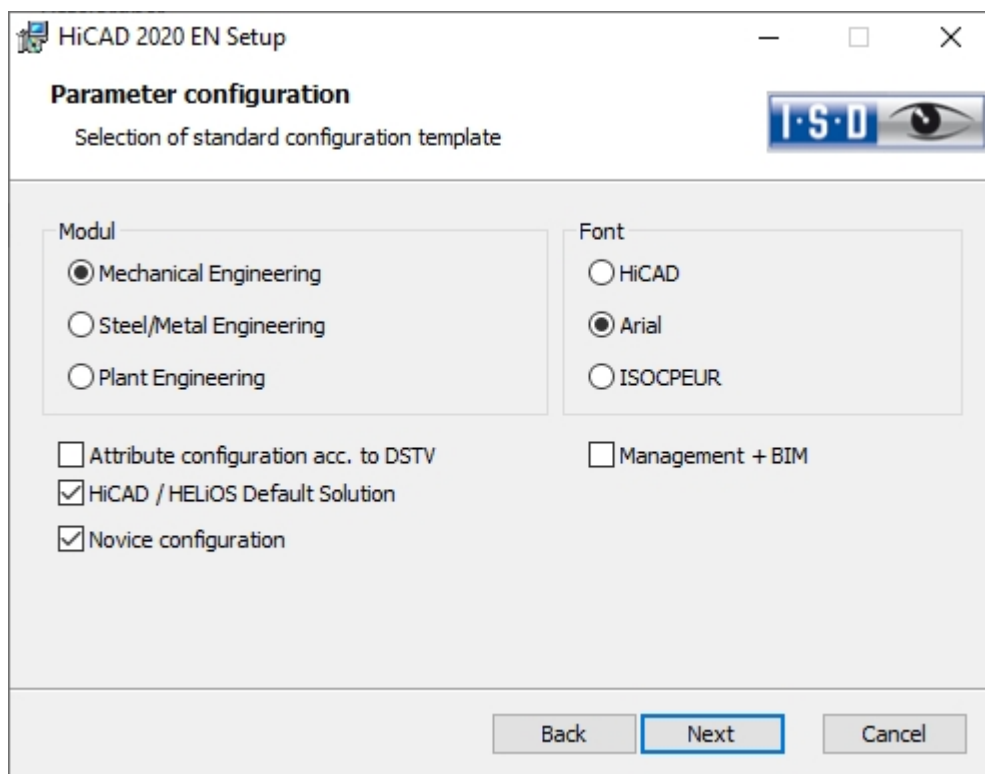
The collected information

- Contains data on the functions that you used (frequency and chronological order).
- Contains a key enabling the identification of your computer. It does not contain any personal data, and will not be used to detect your identity. The key will only be used to obtain data on the diffusion rate of customer feedback. For instance, it is important to know whether a functionality has been used 100 times by 1 customer, or whether another function has been used only once by 100 customers etc.
- Will be automatically removed after transmission to the ISD. In case of a failed transmission (e.g. because of network problems) the information will be automatically removed after 1 week at the latest when the program has been re-launched.
- Will not cause a slowing down of the program operation.

The ISD will not

- Store your name, address, or any other personal data.
- Ask any further questions besides asking for your consent to the participation.
- Use the data for any other purposes than those described above.
- Contact you in any form in connection with your participation.

You can choose to participate when installing the product for the first time. To terminate your participation at a later time, choose **Help > Customer Feedback**, and select the corresponding option.

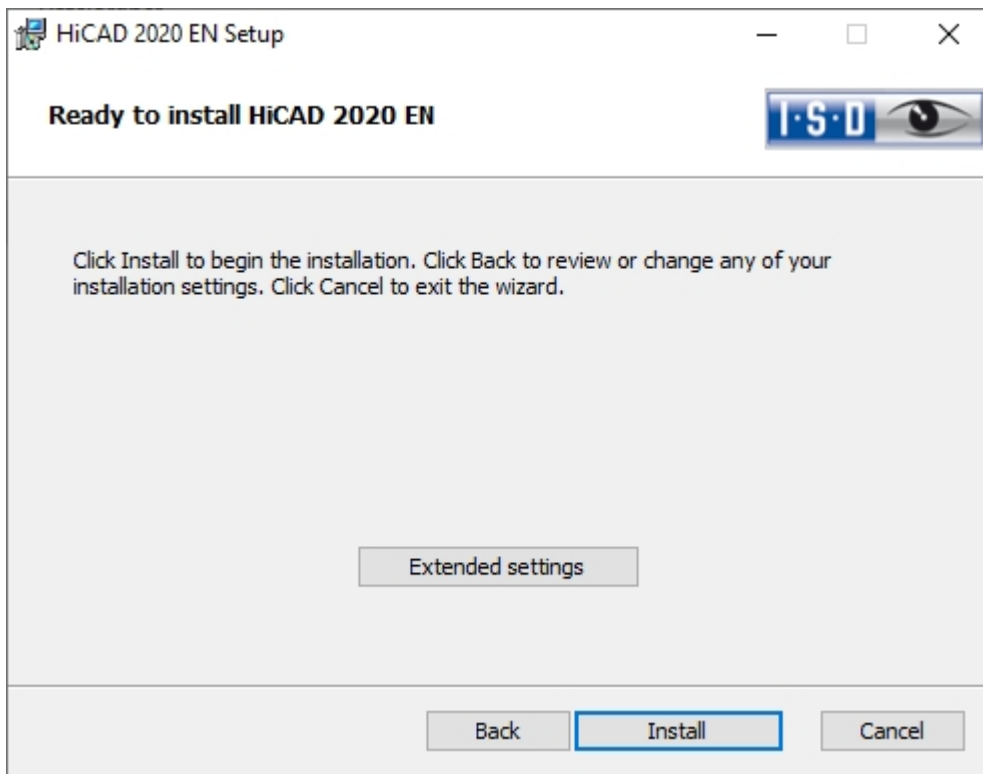


For different drawing areas HiCAD offers especially adjusted surfaces and configurations, e.g. for Mechanical Engineering, Steel Engineering and Plant Engineering. These can be selected during the installation of HiCAD.

Depending on the parameter configuration the saved settings in the CSV file will be applied, too. The CSV file contains information on e.g. which files (e.g. HiCAD part masks or template files for labels) should be copied into the sys directory. In case of an update different system files in the HiCAD sys directory will be replaced – without further inquiry – by file supplied in the HiCAD templates directory, which are specifically adjusted to the chosen modules and activated checkboxes (e.g. DSTV or Management + BIM).

Via **Extended Settings** you can change the parameter configuration once more and select your own template files.

Select a module for the parameter configuration and click **Next**.



You can now start with the installation or modify the **Extended Settings**, e.g. for the user configuration, the catalogues, or HiCAD with HELIOS.

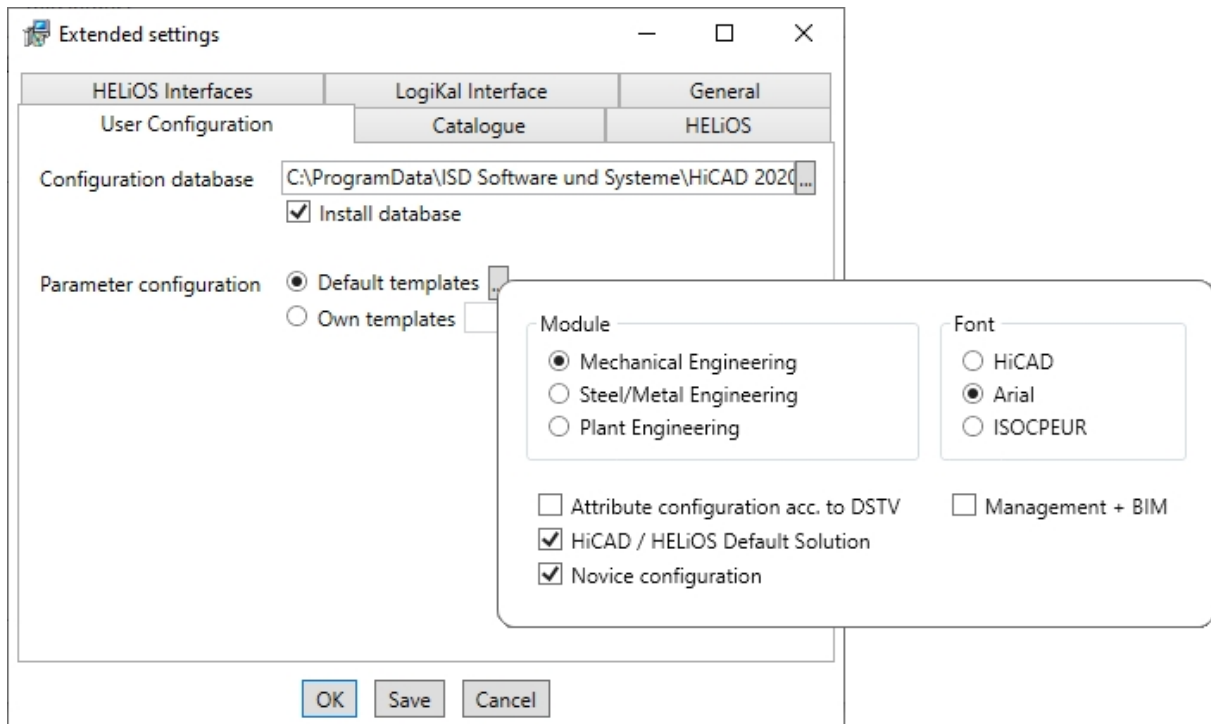


**Please note the following important information:**

If a network path is specified on the tabs **User Configuration**, **Catalogue** or **LogiKal interface**, please make sure that not the connected network paths (e.g. H:\Data\HiCAD\_Katalog) are specified here, but the **direct UNC paths** to the respective server, e.g. \\Server01\Data\HiCAD\_Katalog.

This is because the user, e.g. the system administrator performing the installation, in contrast to the user using HiCAD, may not have connected the required network drives (in the above example: H:\). In such a constellation, these paths cannot be set up correctly by the installation.

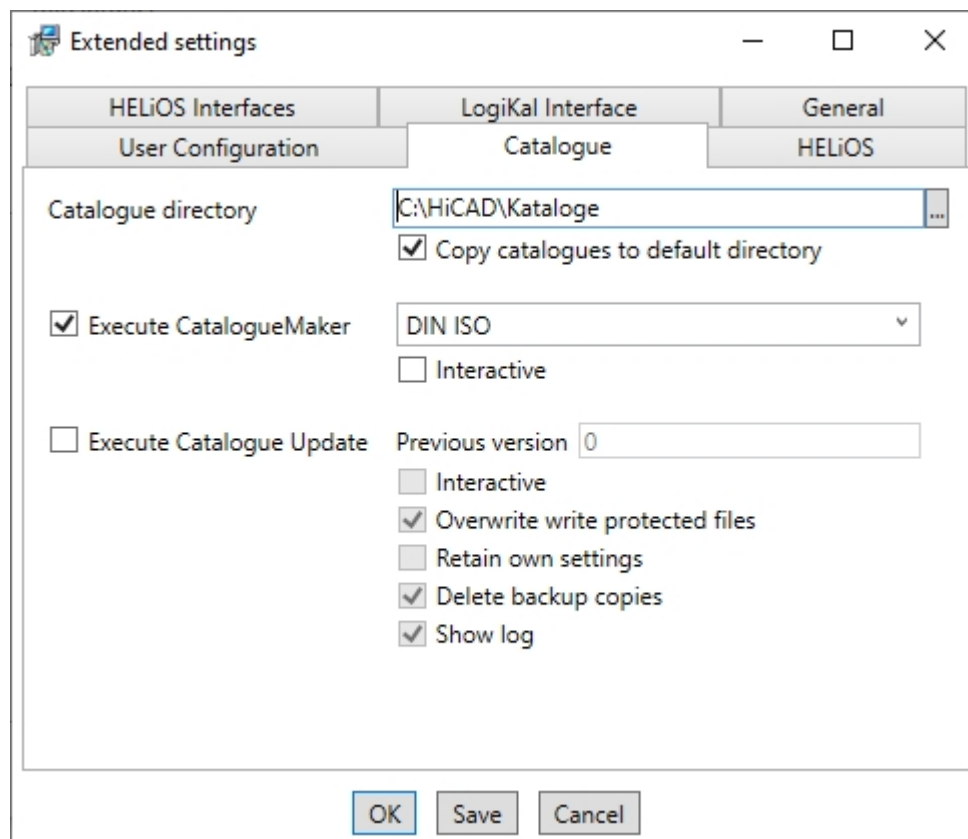
In contrast, UNC paths are available in the same form to both users - provided that both users have access.



In the **Configuration Database**, customer-specific settings for various features such as dimensioning, annotations, workshop drawing creation or fitting of vertical ladders are stored. When performing an update, **customer-specific settings** can be applied. In addition, values that have not been modified by the user will automatically obtain the updated pre-settings.

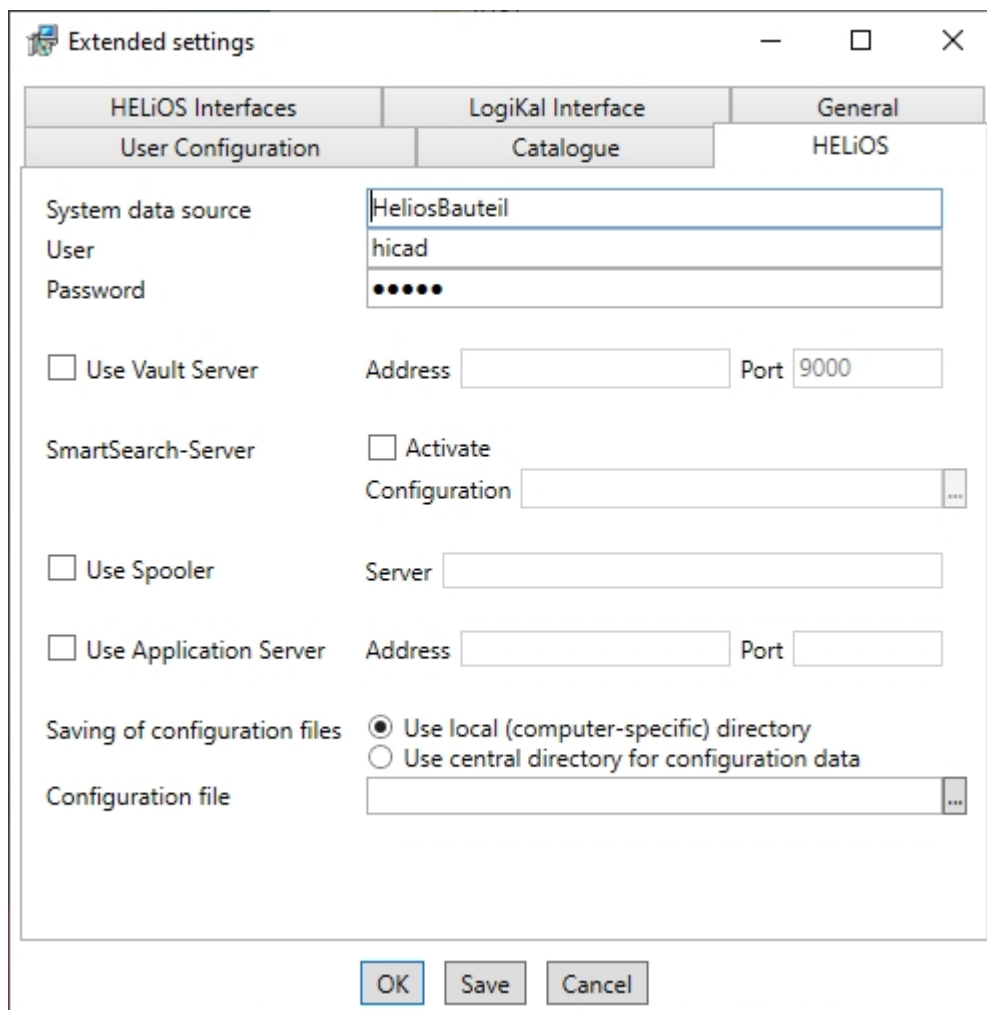
In the Parameter configuration you can modify previously activated default templates. Moreover, you can select CSV files via **Own templates**. The settings stored in the CSV file, too, will be applied. In a CSV file it is, amongst other things, specified which files (e.g. HiCAD part masks or template masks for annotations) are to be copied to the sys directory. When performing an Update, various system files in the HiCAD sys directory will be replaced with the files supplied in the HiCAD templates directory which have been designed especially for a working with the selected module and the activated checkboxes (e.g. ...DSTV or Management + BIM). The standard CSV files are located in the templates directory of the HiCAD installation. CSV files are configuration templates that you can create and edit with Microsoft Excel (please see Online Help).

Parameter configuration: **No templates** is activated by default in Parameter Configuration. You can also change this setting subsequently, via the programs `..exe/ParKonfigComp.exe` (for the workstation) and `..exe/ParKonfigUser.exe` (for the User).




The execution of the **CatalogueMaker** serves the purpose of specifying which standard series are to appear in the standard part catalogues (currently standard series are available for DIN, ISO, EN, ANSI and JIS); the selection of standards in the **CatalogueMaker** only influences the display of standard parts, but not their availability; the availability is still controlled via license selection in the **ISD License Manager**.

In case of updates, the existing configuration will be applied, and the CatalogueMaker will not be started automatically. If you want to add standards to the catalogues, the program can be called via **Start > All Programs > ISD Software und Systeme GmbH > Administration**.



In case of a new installation you can specify an arbitrary name for the system data source. In case of an update, the existing data source will be offered. User and Password will be identical with the ODBC login.

If you use a Vault Server, activate the **Vault Server** checkbox. Enter the name of the Server in the **Address** input field, and the Server Port of the Vault Server in the **Port** input field. You already entered both during the installation of the Vault Server.

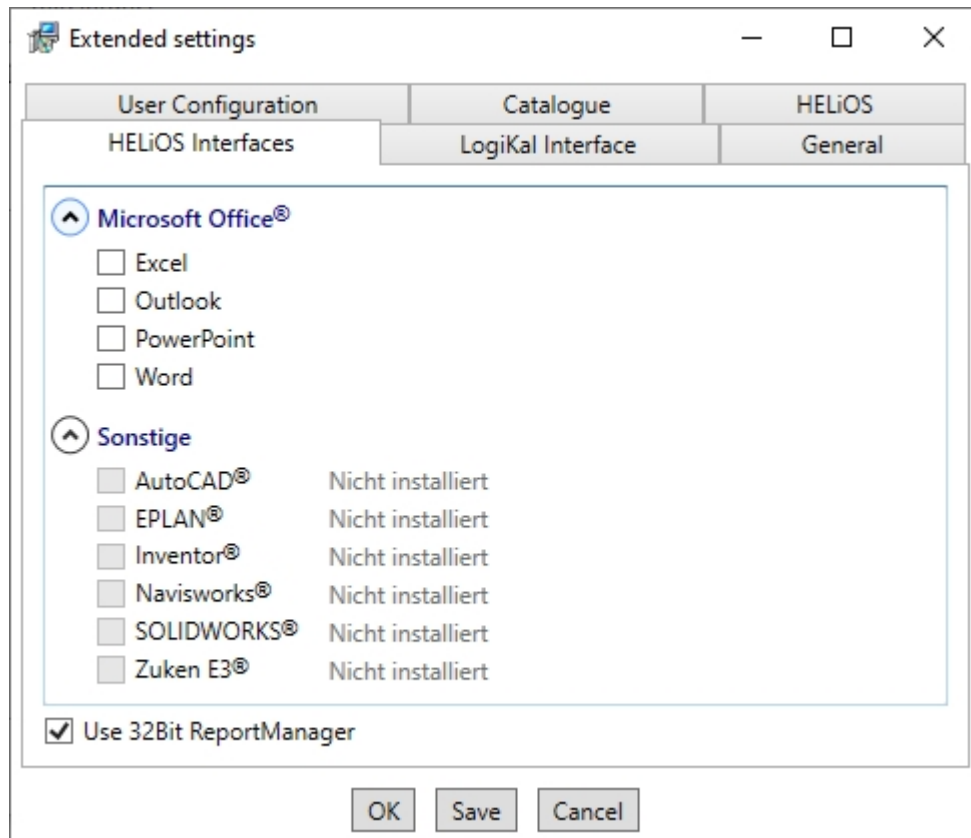
If you have not installed the Vault Server yet, you can do this now: Choose HELiOS Options > Database > General > Vault Server  and specify the connection. For activation you must then restart the HELiOS Desktop.

During an update installation it will be checked whether the existing HELiOS version is newer than the one on the DVD. If this is the case, the HiCAD installation will only update the non-HELiOS files. The HELiOS files are those that would be supplied by a standalone installation of the HELiOS Desktop, minus the hacadcommons contained therein.

If you want to process your print jobs via the ISD **Plot Management**, you need to install one **PrintClient** on each workstation. Activate **Use Spooler**. In the Server field, enter the network name of the computer on which the Spooler is installed. The Spooler collects the print jobs and processes them, taking your settings into account.

Individual settings of HELiOS can be distributed to other users or workstations. To do this, create a ZIP file in HELiOS at **View > Settings > Export**.

During installation, if the option **Use central directory for configuration data (across computers)** is activated, you can save the configurations of the HELiOS Desktop to a central computer and select and import them at **Configuration file**.



The availability of interfaces with HELiOS depends on the programs that are installed on your computer. You can only link 32Bit versions to HELiOS 32Bit versions, and only 64Bit versions to HELiOS 64Bit versions. An exception is the MS Office Interface, where you can link a 32 Bit Office to a 64 Bit HELiOS. Please note however that an additional, special ODBC connection will be required for old BOMs. In such cases, please contact the ISD Consulting team.

Multiple selections of HELiOS Interfaces are also possible. The HELiOS functions will be integrated in the programs that are linked to HELiOS.

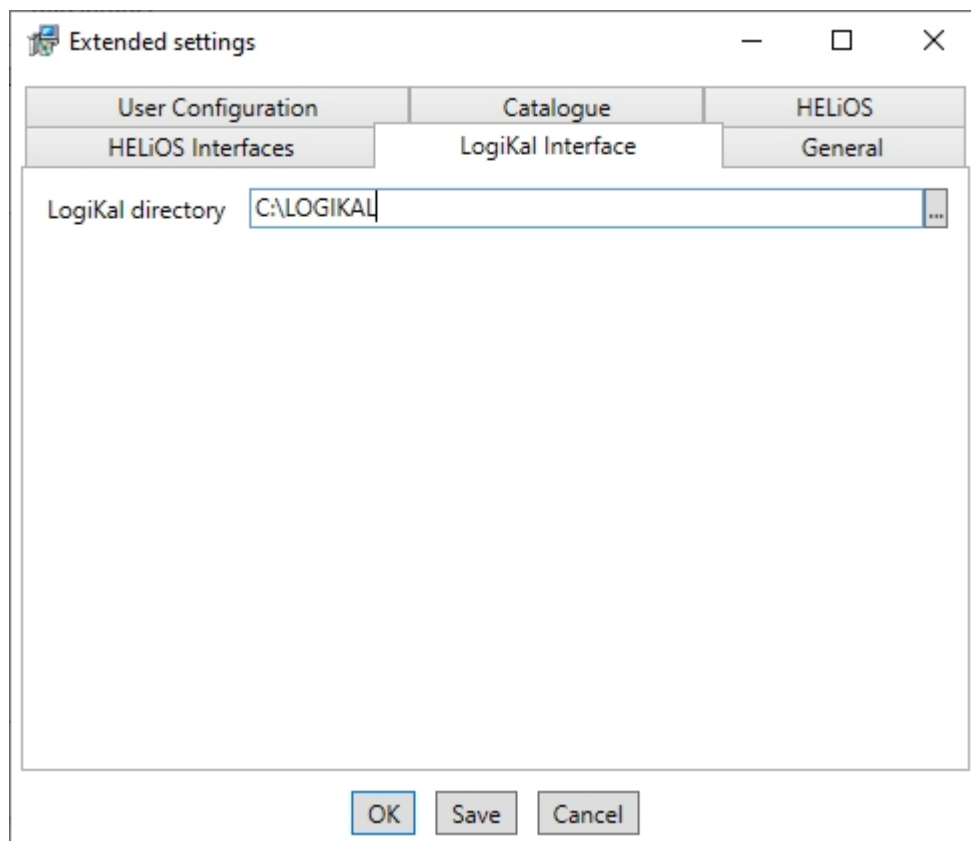


**Please note:**

- Integration of shared networks

If a directory is accessed by more than one computer, in the filegrup.dat under C: (for the Scenes directory) should not be listed a local path or the network connection letter, but the entire UNC path according to the pattern C:\\servername\ShareName\Directory.

The filegrup.dat can be found in the HiCAD/HELiOS installation in the HiCAD exe directory and in case of an EPlan interface as well under HELiOS EPlan SyncService\exe. In the HELiOS Standalone installation the filegrup.dat can be found in the HELiOS exe directory.

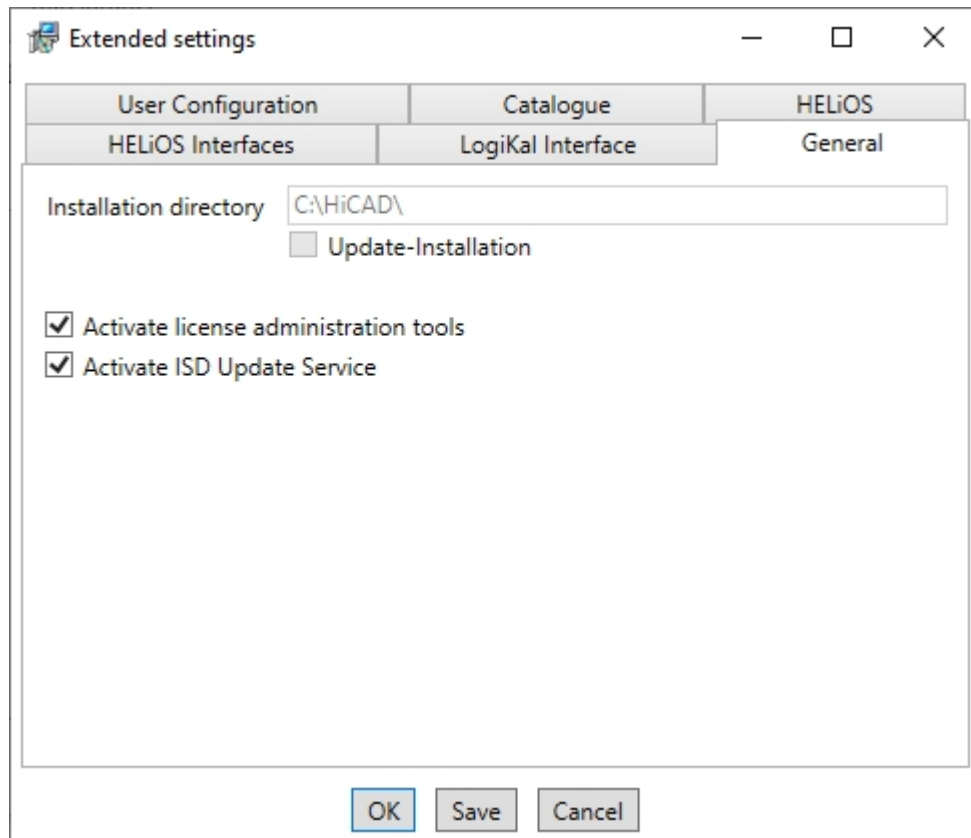


If you have installed **LogiKal** on your computer, you can enter the installation directory here.



**Please note:**

In HiCAD, at **Settings > Further directories** you can set the paths for the database of the **Configuration Editor**, the **Catalogue Editor** and **LogiKal**. These paths are located in the Windows Registry at **HKEY\_LOCAL\_MACHINE\SOFTWARE\ISD Software und Systeme\HiCAD\nnnn.n**. nnnn.n is the HiCAD version number, e.g. 2500.0.



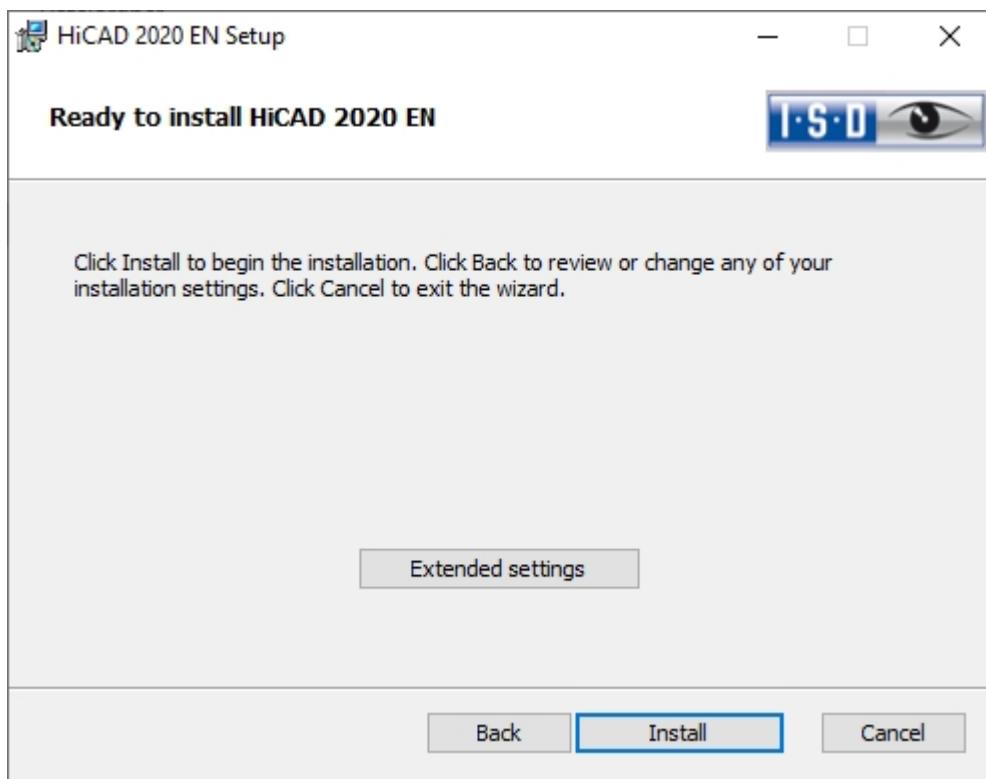
The **Activate license administration tools** checkbox must be activated for the management of server licenses.

If you checkmark the **Activate ISD Update Service** option, a Hotfix will be searched on the ISD Web Server when you start HiCAD. You can also activate this option subsequently via the Windows Control Panel: There, choose **Programs and Features**, right-click on **HiCAD** and choose **Change**.

Click **Save** to save the **Extended Settings** to an .ini file. If you place the .ini file in the installation directory when installing server licenses, the settings will be applied.

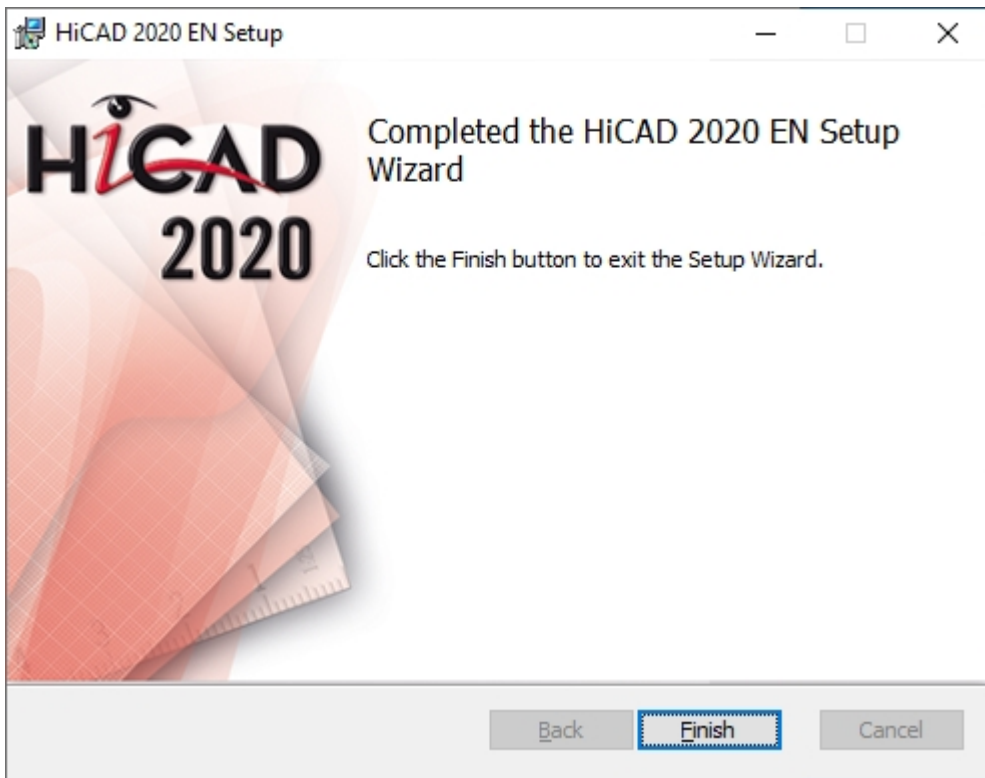
As soon as you exit the **Extended Settings** dialogue with **OK**, the installation will be started.






Click Install.





Click **Finish** to complete your HiCAD installation. After successful installation you will find the HiCAD  shortcut on the Desktop of your computer for program start.

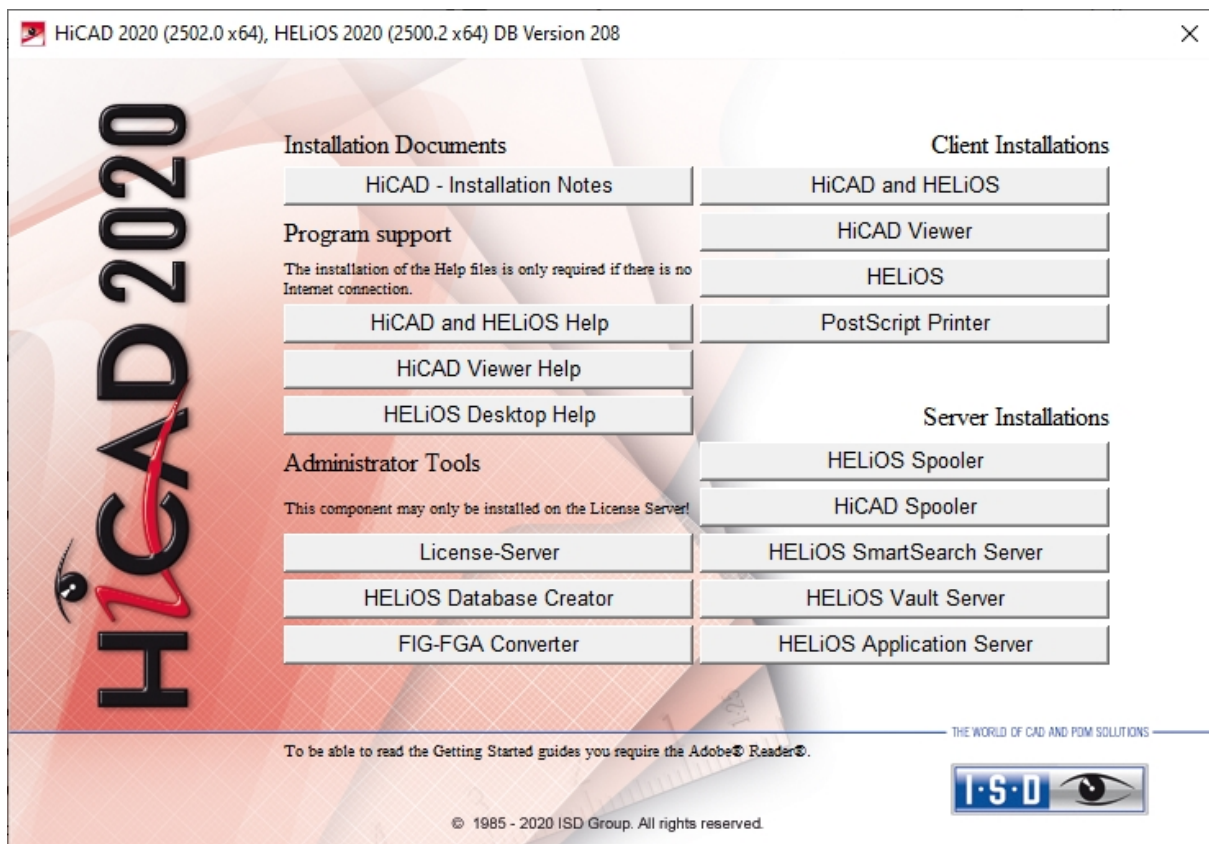
If desired, you can use the buttons of the installation mask to install further software components.

## Installation der Online-Hilfe

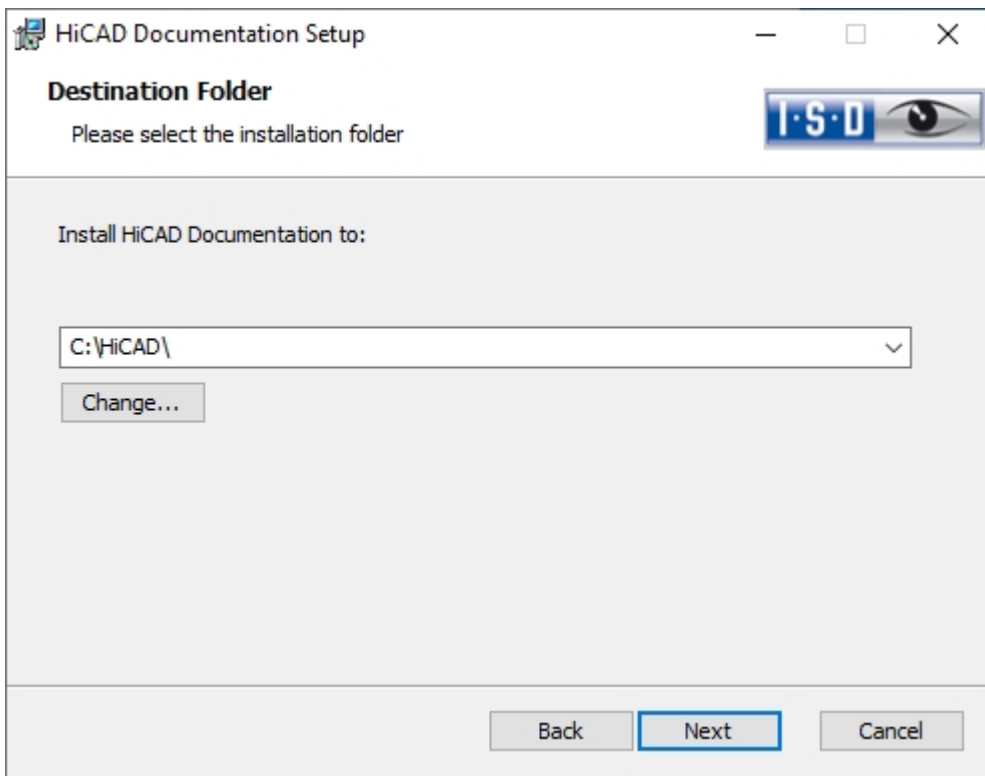
The Online Help is available locally (status of the date of installation DVD creation) and on the Internet (regularly updated) at [www.help.isdgroup.com/en/](http://www.help.isdgroup.com/en/). Both versions of the Help can be directly launched from HiCAD/HELiOS. Please note that corresponding login data are required to access the Internet version of the Help.

Start Windows to install the Help. If Windows has already been opened, close all other applications and start the installation wizard.

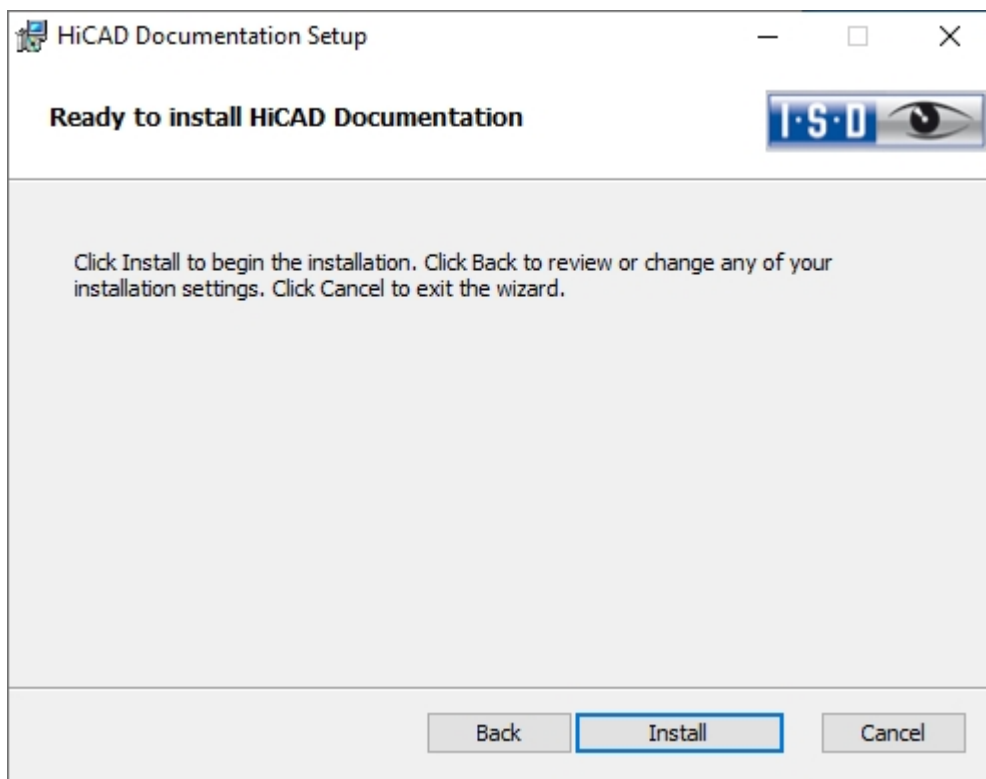
In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components. Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.



Click on the **HiCAD and HELiOS Help** button.



Enter the installation directory for HiCAD/HELiOS.



After successful installation, the Help can be found in the program folder and can be called from HiCAD/HELiOS



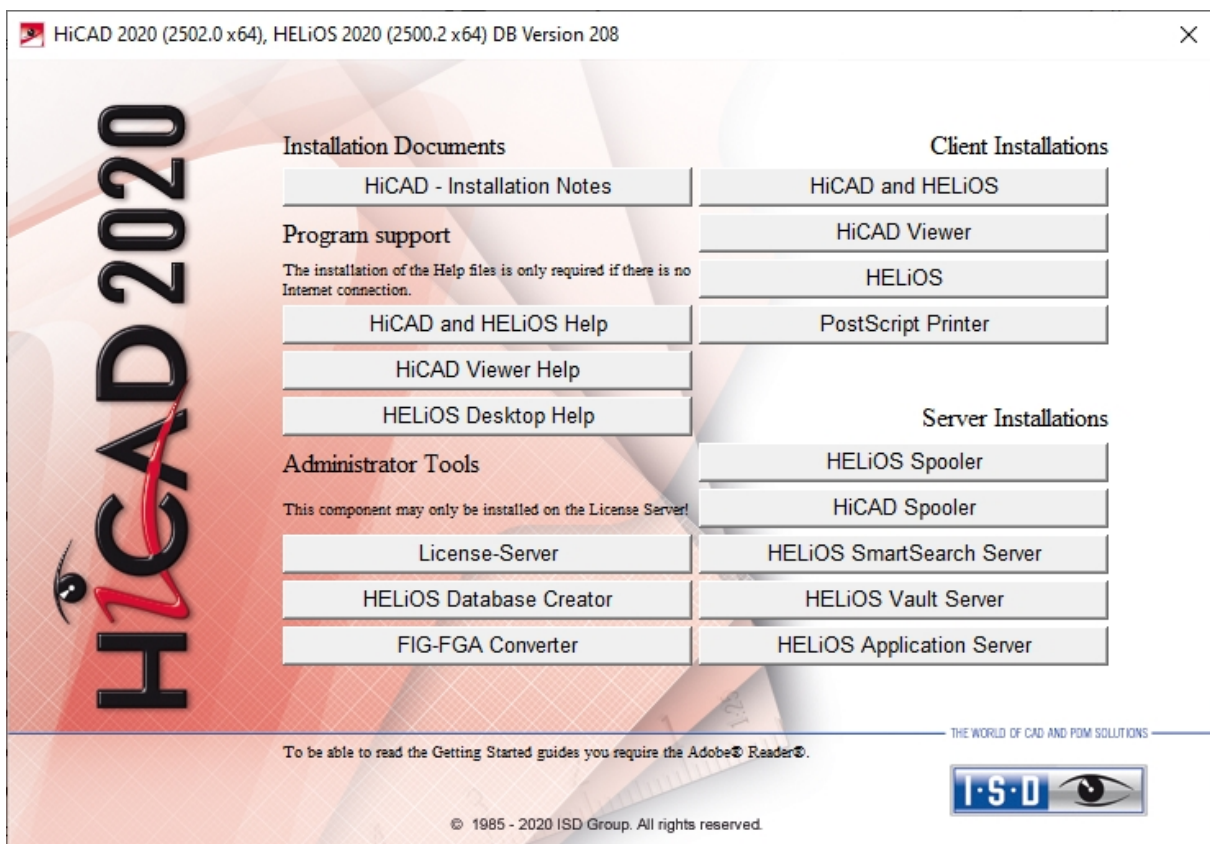
## Installing the HiCAD Viewer

The HiCAD Viewer enables you to view drawings in HiCAD format (\*.sza, \*.szx) and output these drawings (in non-scale representation). This viewer is free of charge and may be provided free, without changing the scope of delivery.

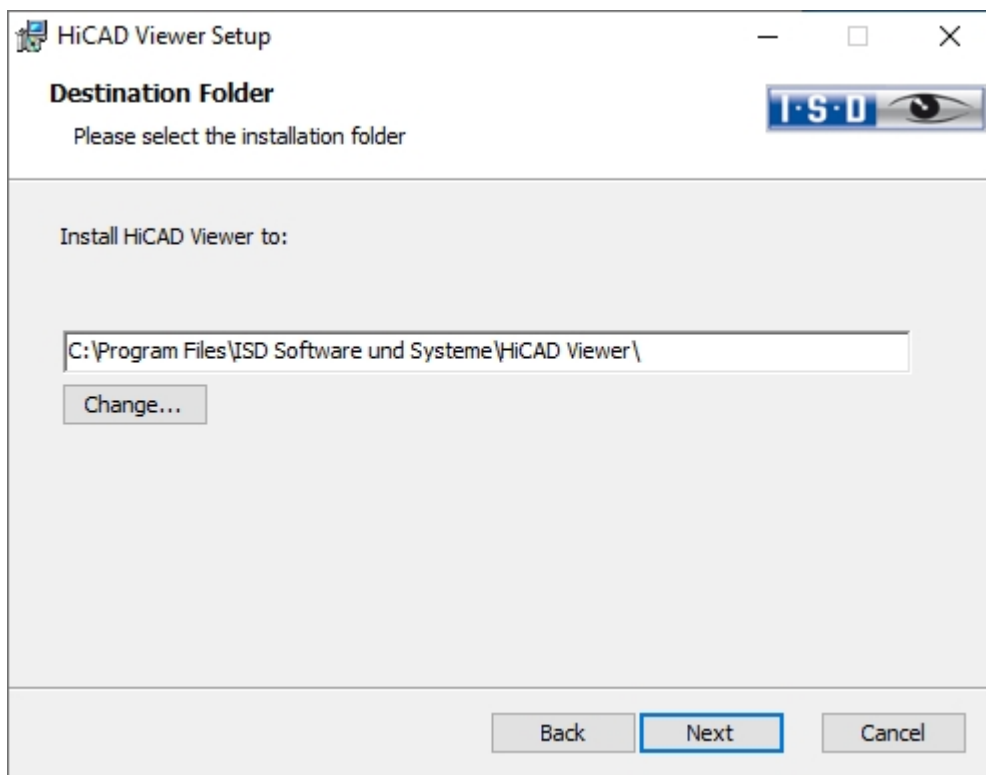
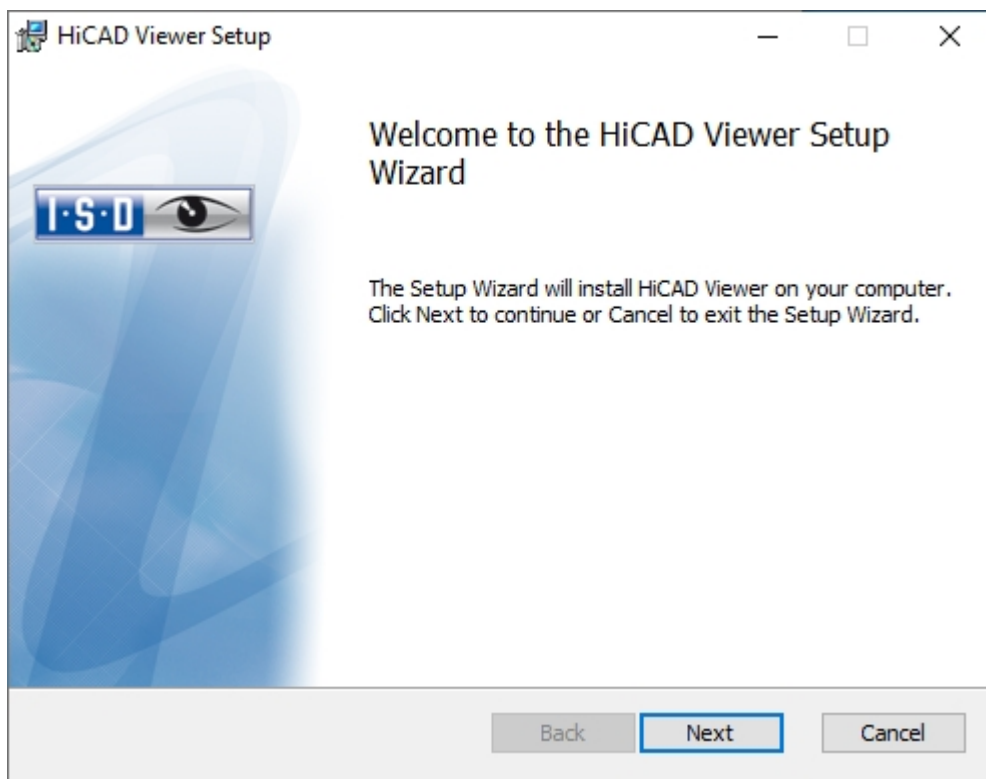
Start Windows to install the HiCAD Viewer. If Windows has already been opened, close all other applications and start the installation wizard.

In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

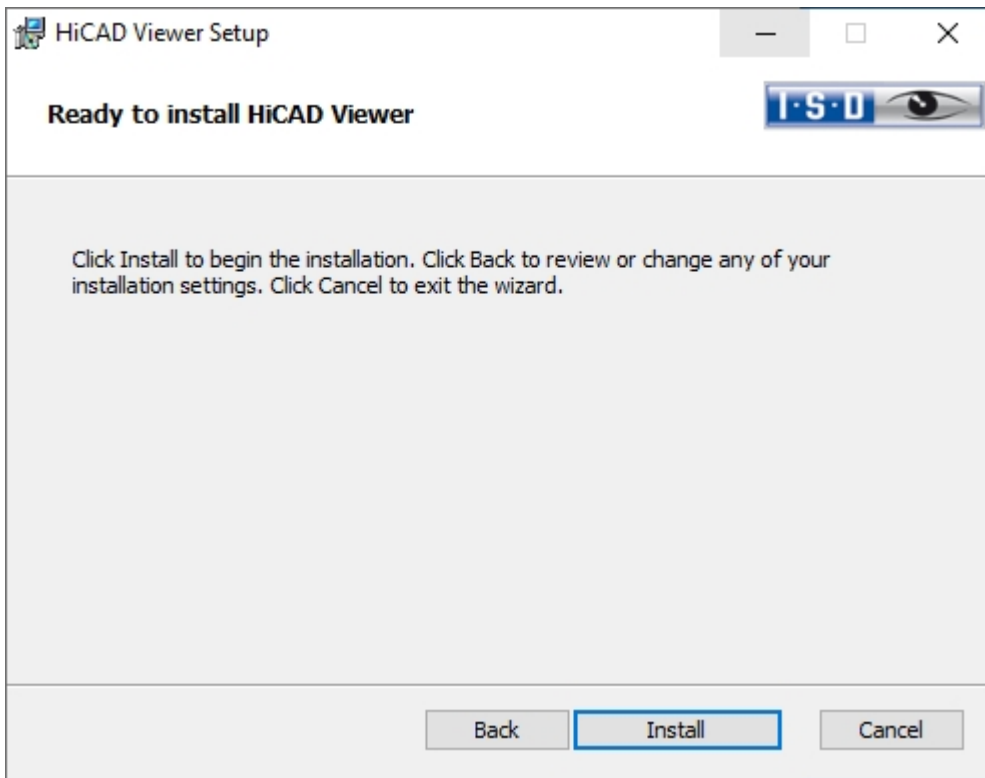
Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.



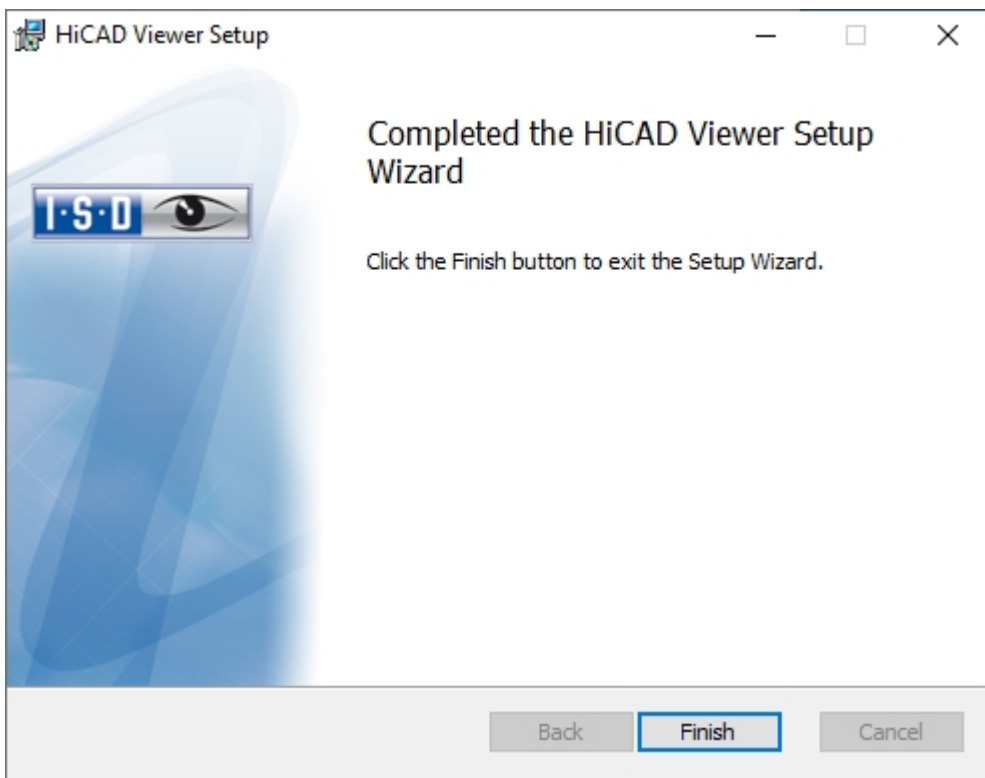
Click on the **HiCAD Viewer** button.



Enter the installation directory for the software.



Click **Install**.



Click **Finish** to complete the installation of the HiCAD Viewer. You can now install further components from the selection mask.

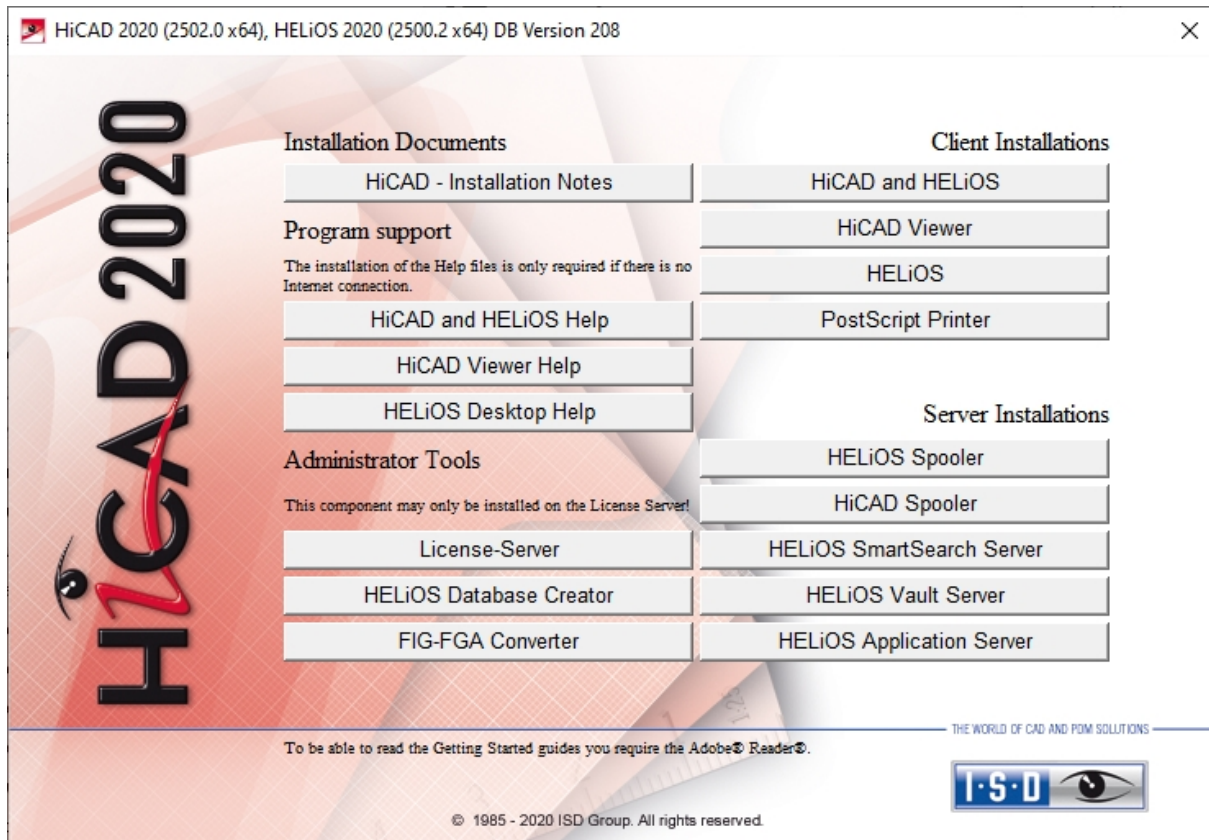


## Installation des HiCAD Spoolers

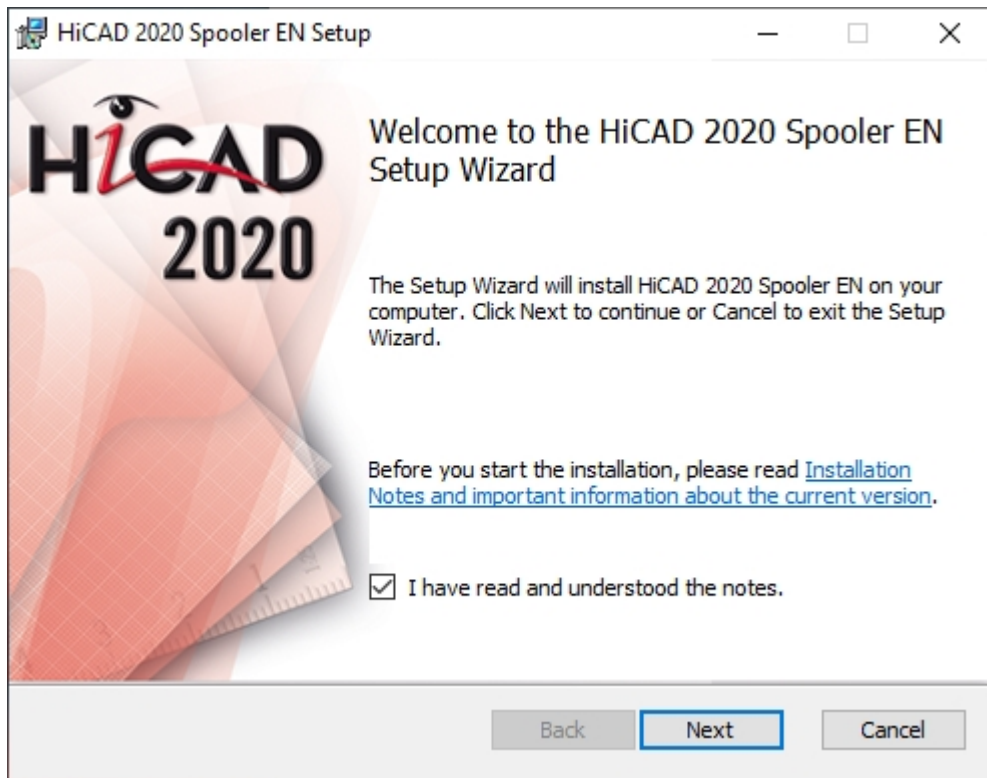
Start Windows to install the HiCAD Spooler. If Windows has already been opened, close all other applications and start the installation wizard.

In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

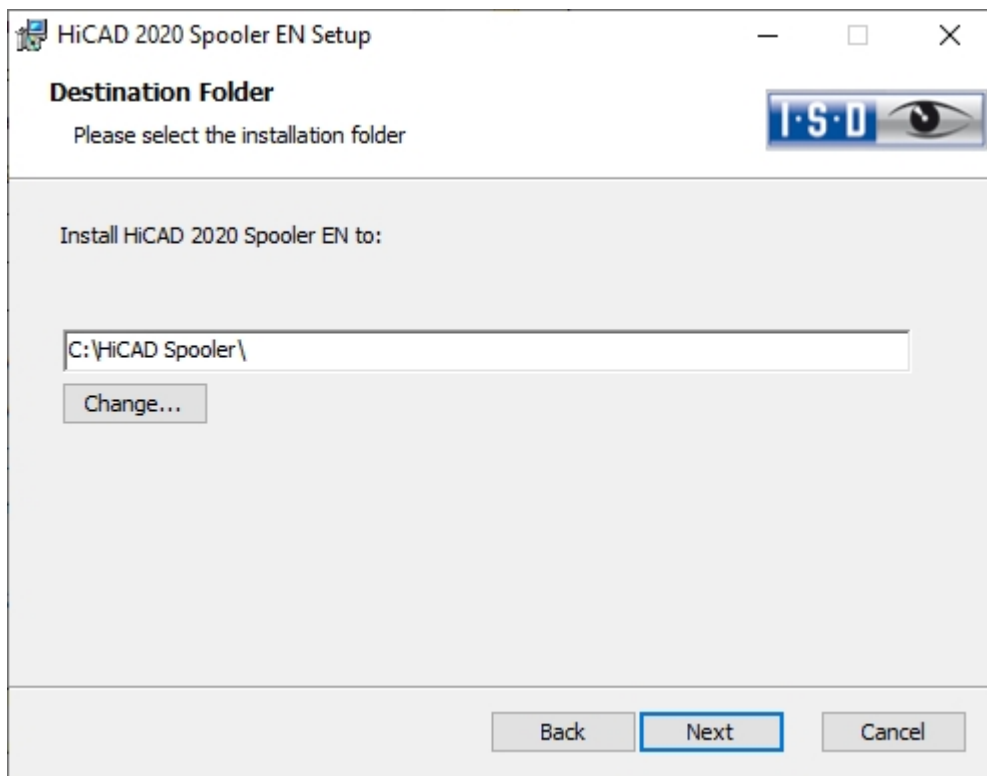
Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.



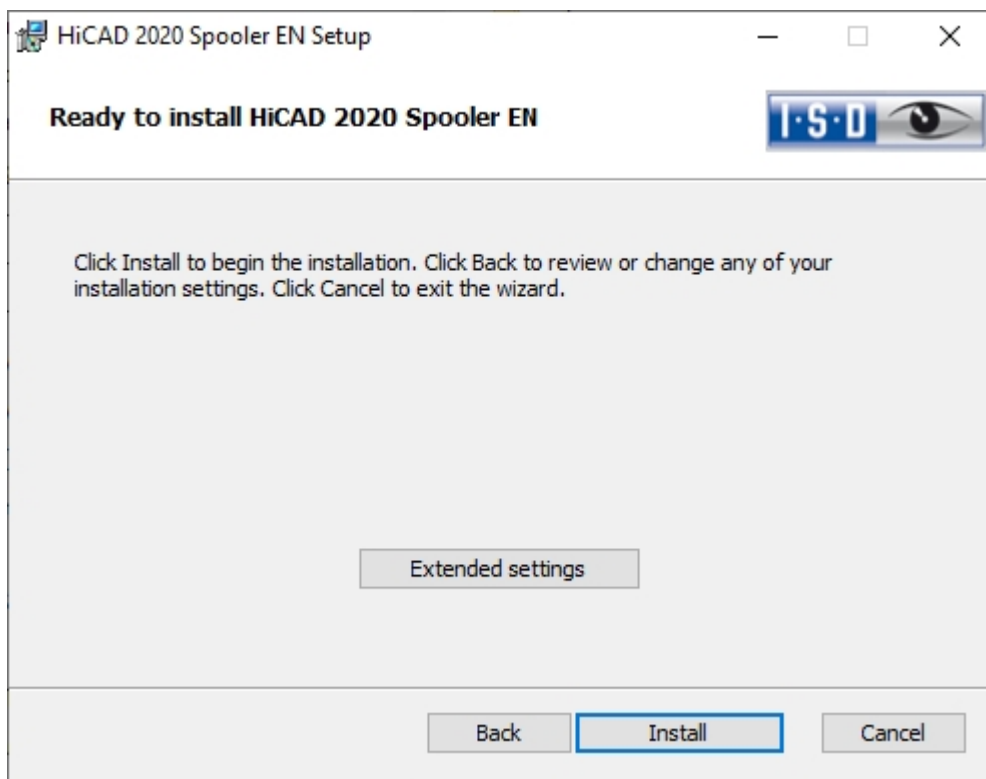
Click on the **HiCAD Spooler** button.



Please read this information carefully.

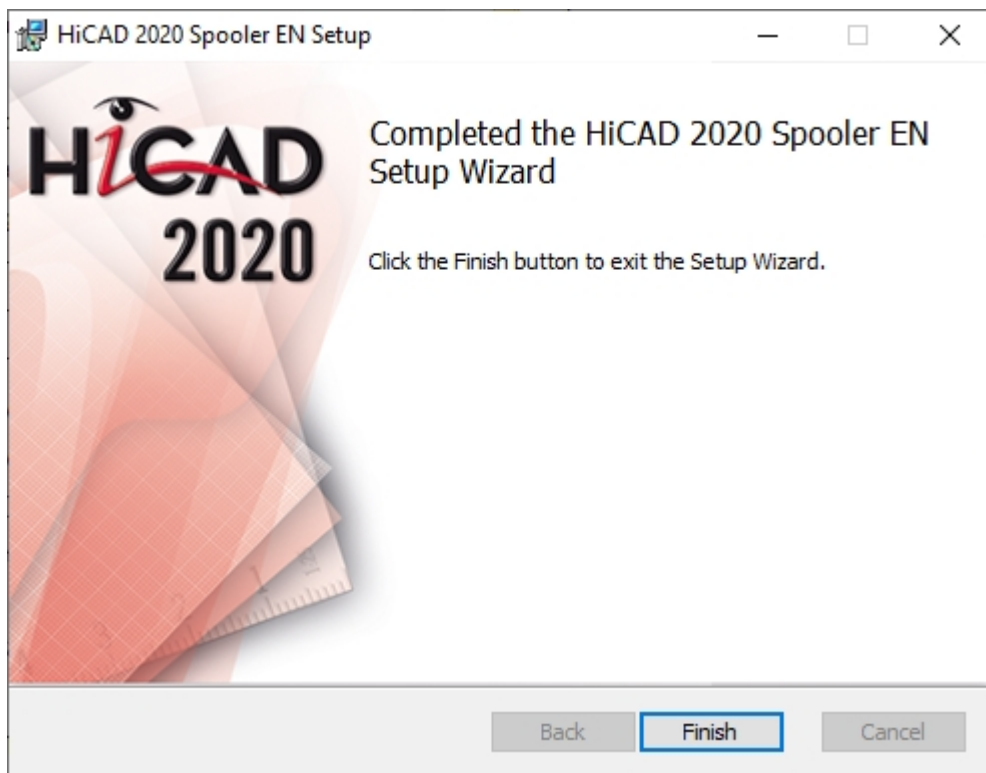


Enter the installation directory for the software.



You can now either begin with the installation or open the **Extended Settings**, for example to modify the user configuration or catalogues. You can modify the **Extended Settings** as you would do for a HiCAD installation.

Click **Install**.



After successful installation, the HiCAD Spooler can be found in the program folder.

## Installing the HELiOS Database Creator

The HELiOS PDM modules (Document management, Part Management, Workflow etc.) are based on a relational database. Before you put HELiOS into operation, the Microsoft SQL Server database administration system needs to be installed on the server, a HELiOS database needs to be imported and a ODBC connection needs to be set up on the clients.

When you set up a HELiOS database for the first time, the **HELiOS Database Creator** needs to be installed and executed on the database server first. The database and table structures will then be created, and filled with data records of the HELiOS standard database.



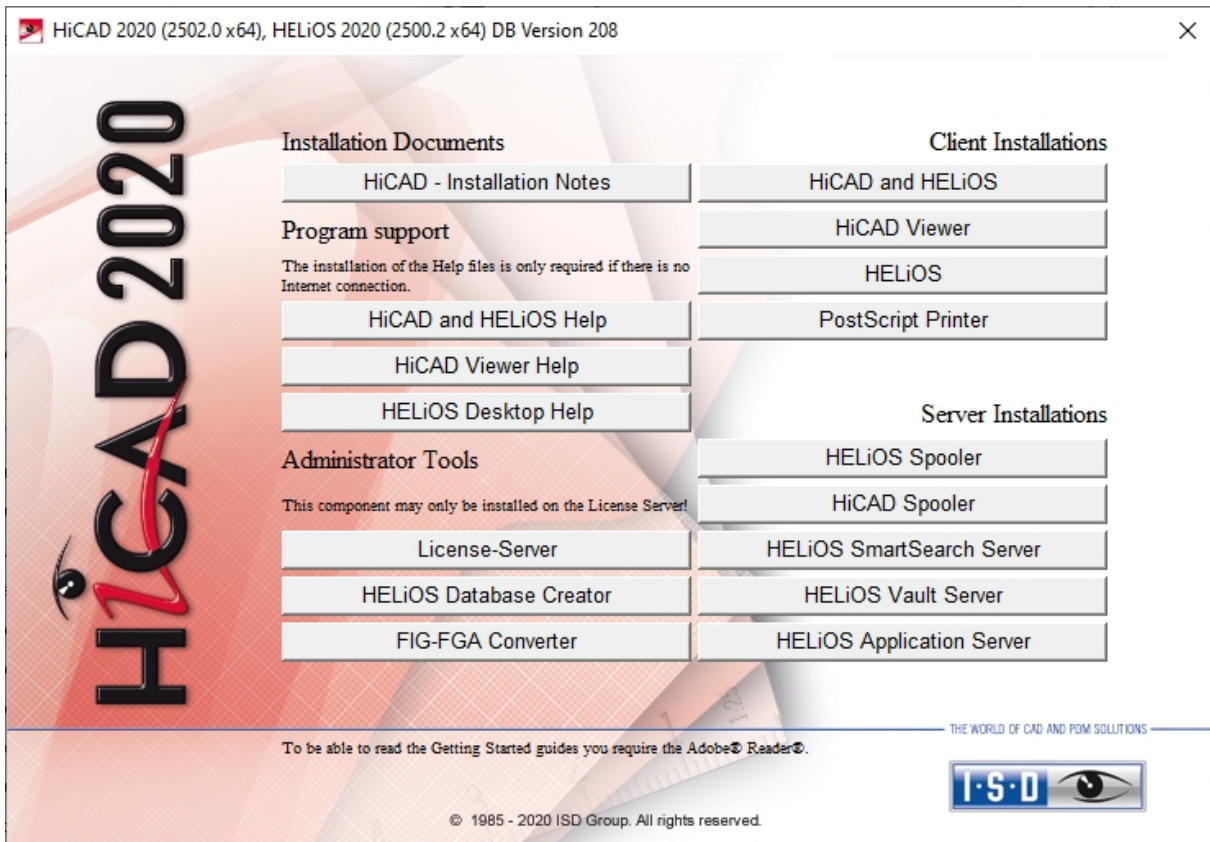
**Please note:**

Further information about the correct procedure for the execution of the HELiOS Database Creator, as well as the previous and subsequent steps required for the setting up of a database server can be found in the user guide for the installation of the **Microsoft SQL Server**. You can find this document in the ISD Wiki.

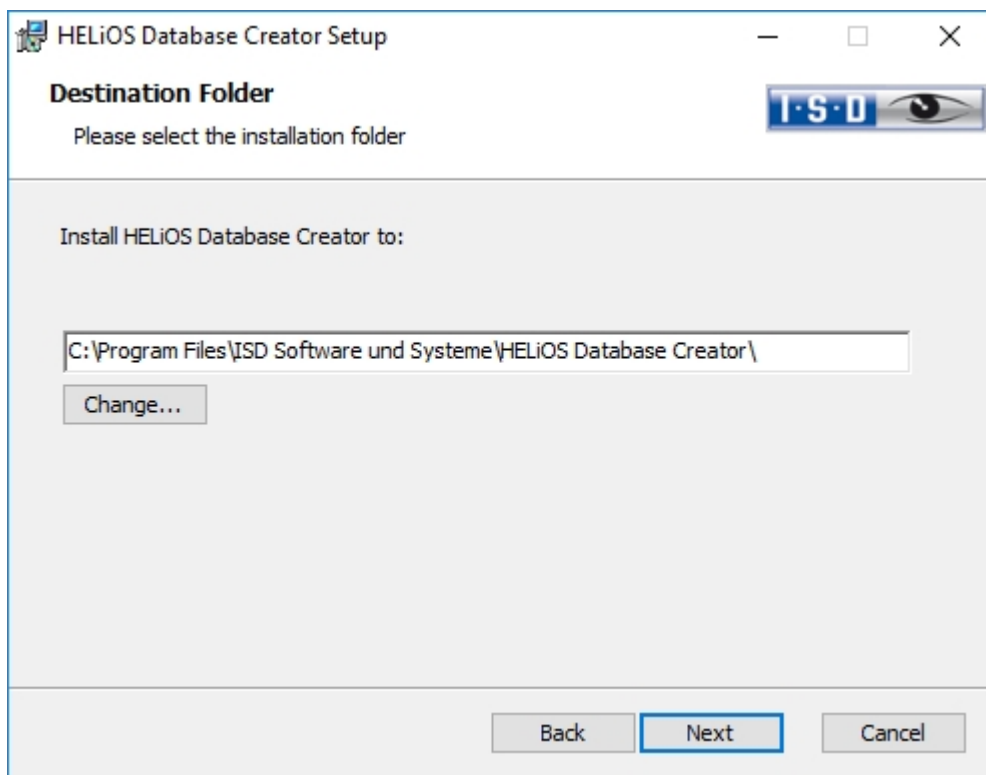
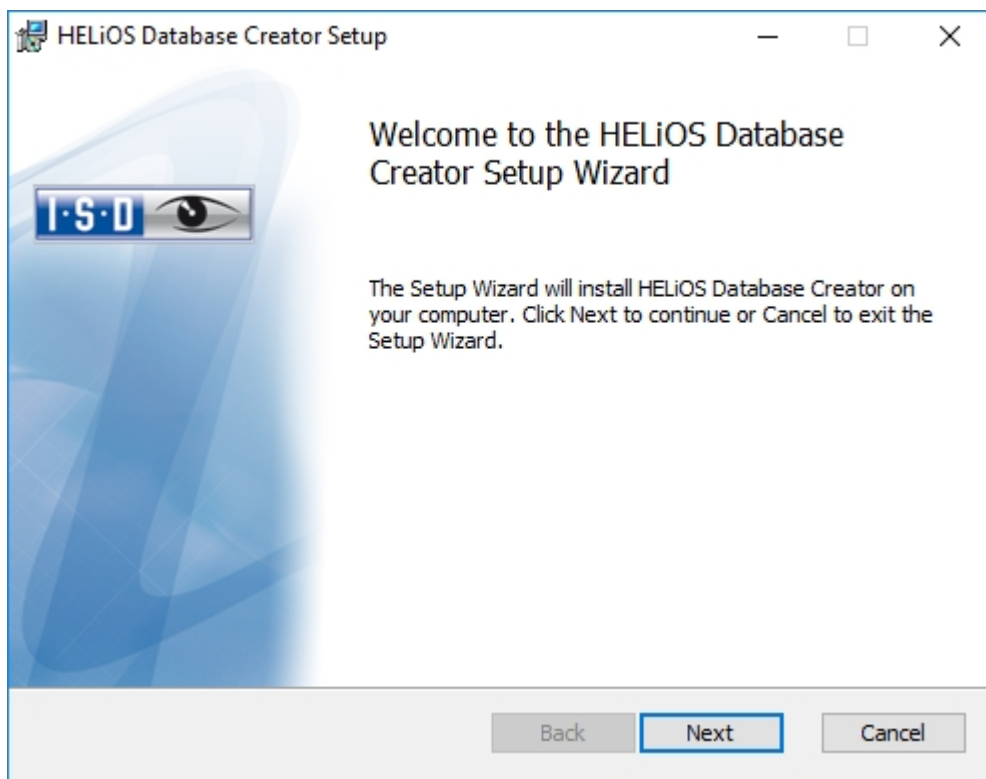
Start Windows to install the HELiOS Database Creator. If Windows has already been started, close all other applications and start the installation wizard.

Click on the **Standard Edition** button. This will open the following selection mask.

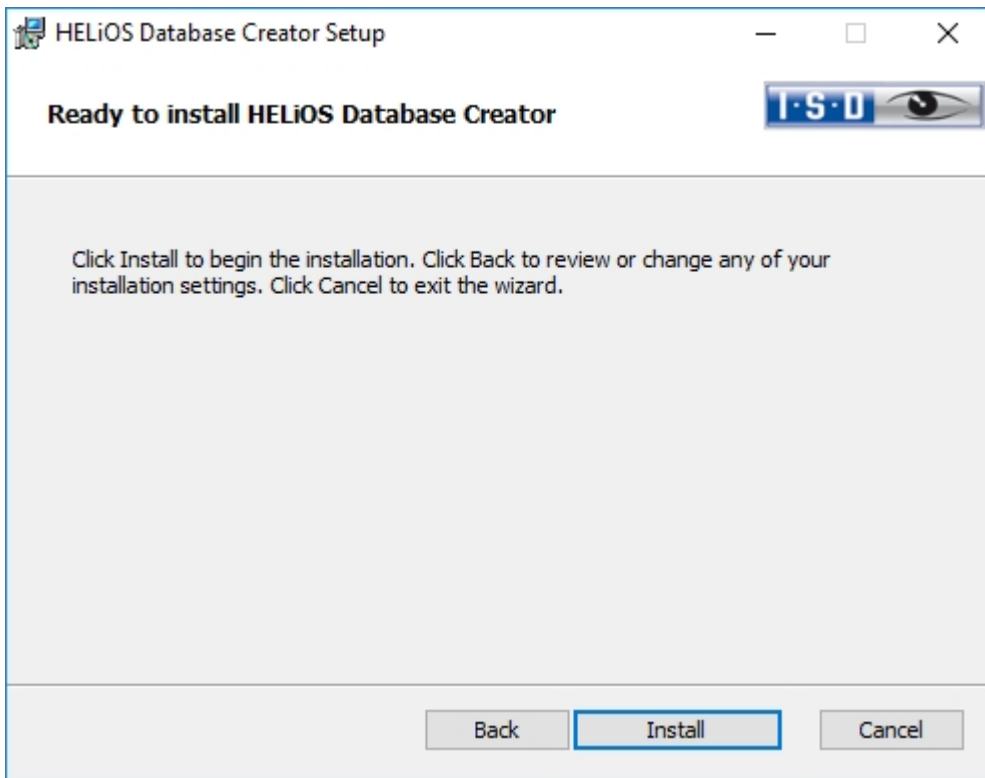
Leave this selection mask open, so that you can select the desired components one after the other.



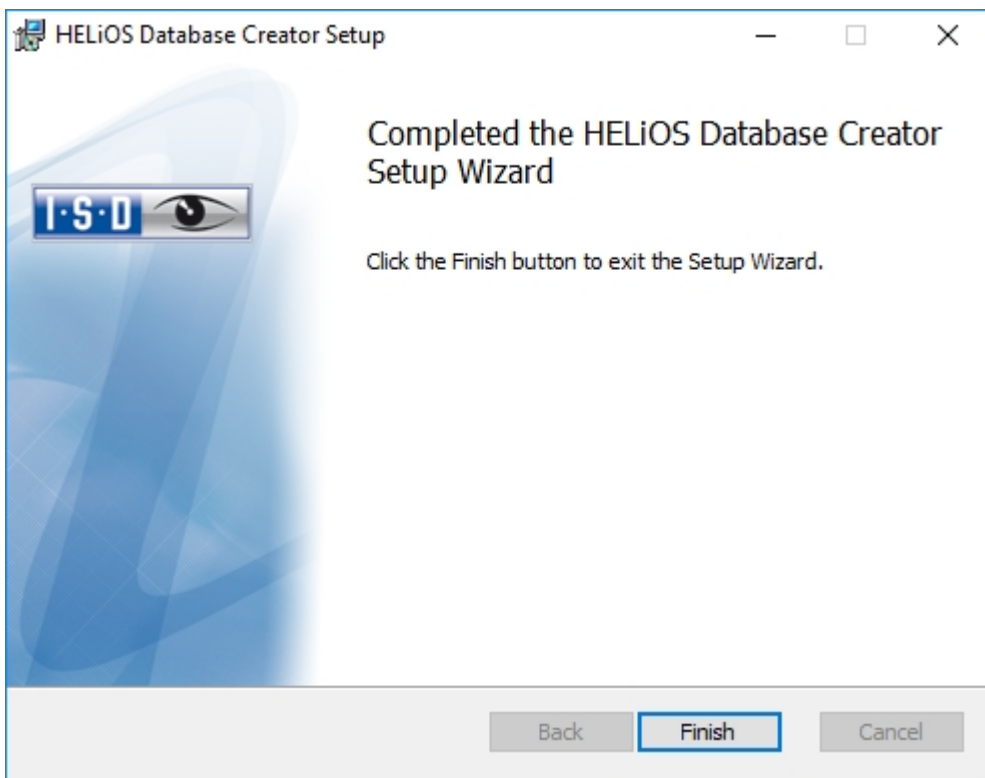
Click on the **HELiOS Database Creator** button.



Select an installation directory for the **HELiOS Database Creator** and click **Next**.



Click **Install** to start the installation.



Click **Finish** to complete the installation of the **HELiOS Database Creator**. If desired, you can now install further components via the selection mask.

## Installing the HELiOS Vault Server

Please start Windows to install the HELiOS Vault Server. If Windows is already open, end all other applications and start the Installation Wizard.

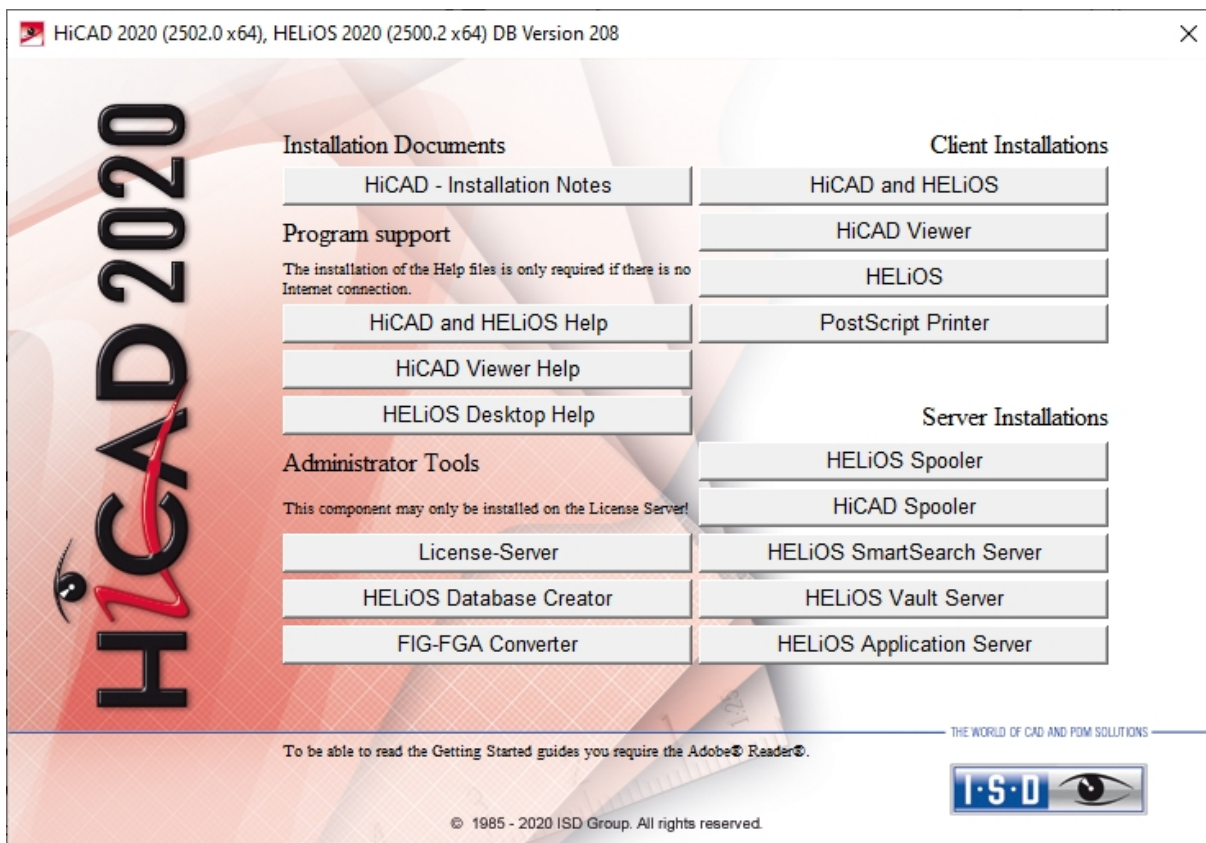
Click on **Standard Edition**. The screen with the software components then appears.

This screen remains open so that you can install the required components one after another.

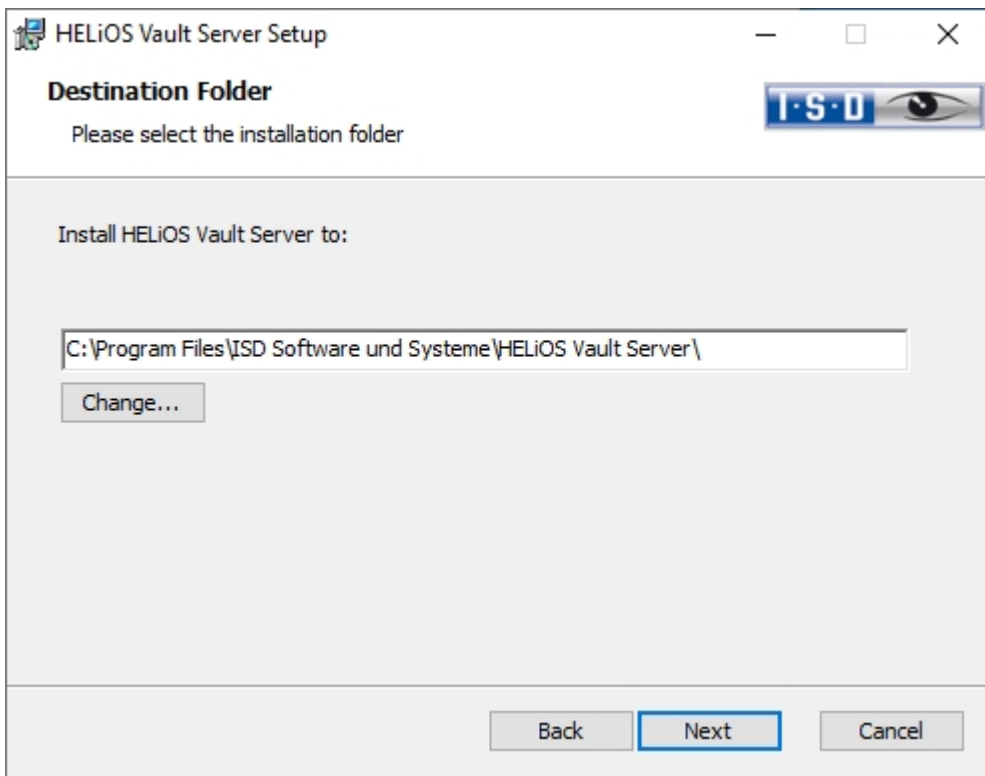
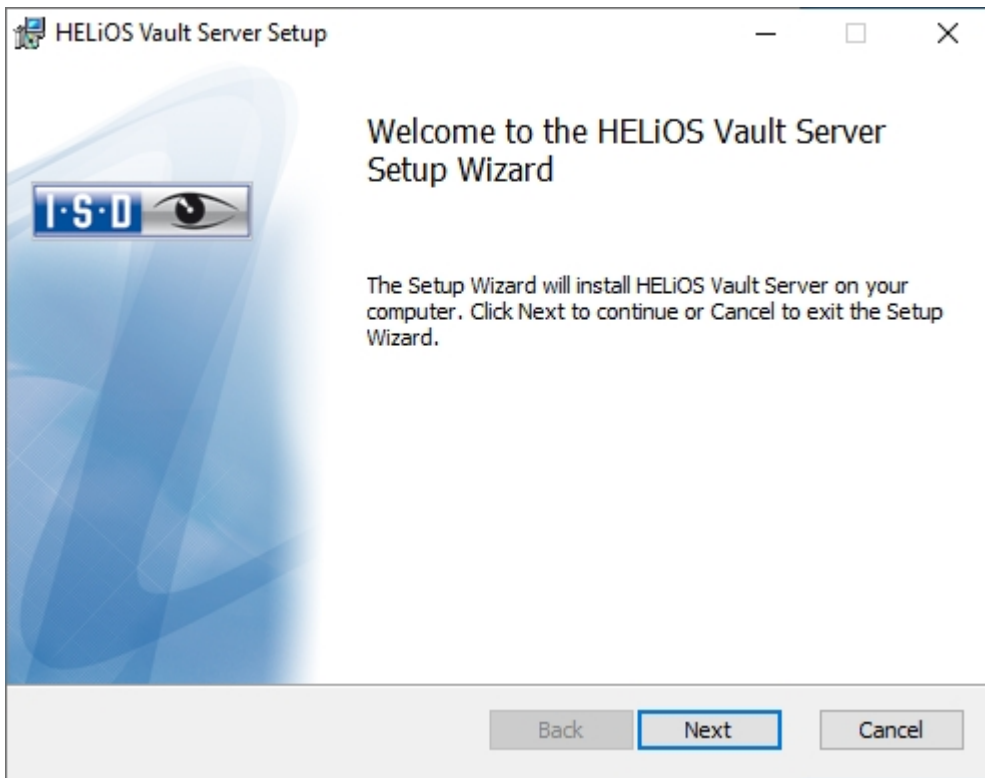


**Please note:**

In rare cases, a manually installed older version of the Vault Server may be found which is not touched (updated) by the setup for safety reasons. In case of an error message, please contact our hotline staff. E-Mail: support@isdgroup.com

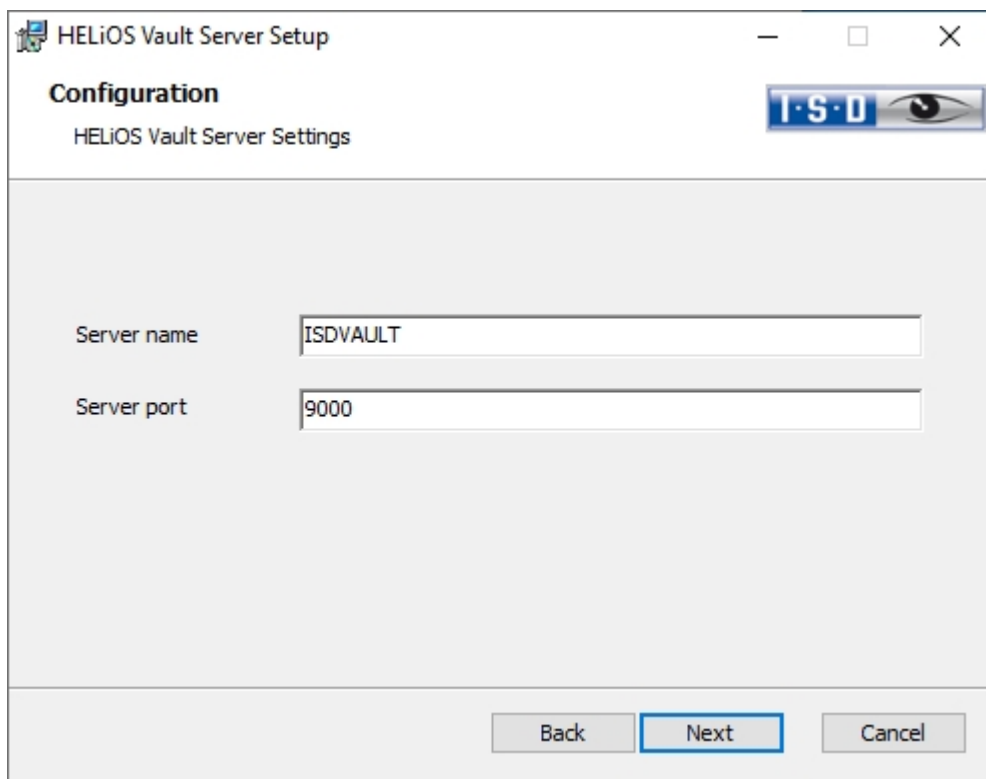


Click on the **Vault Server** button.

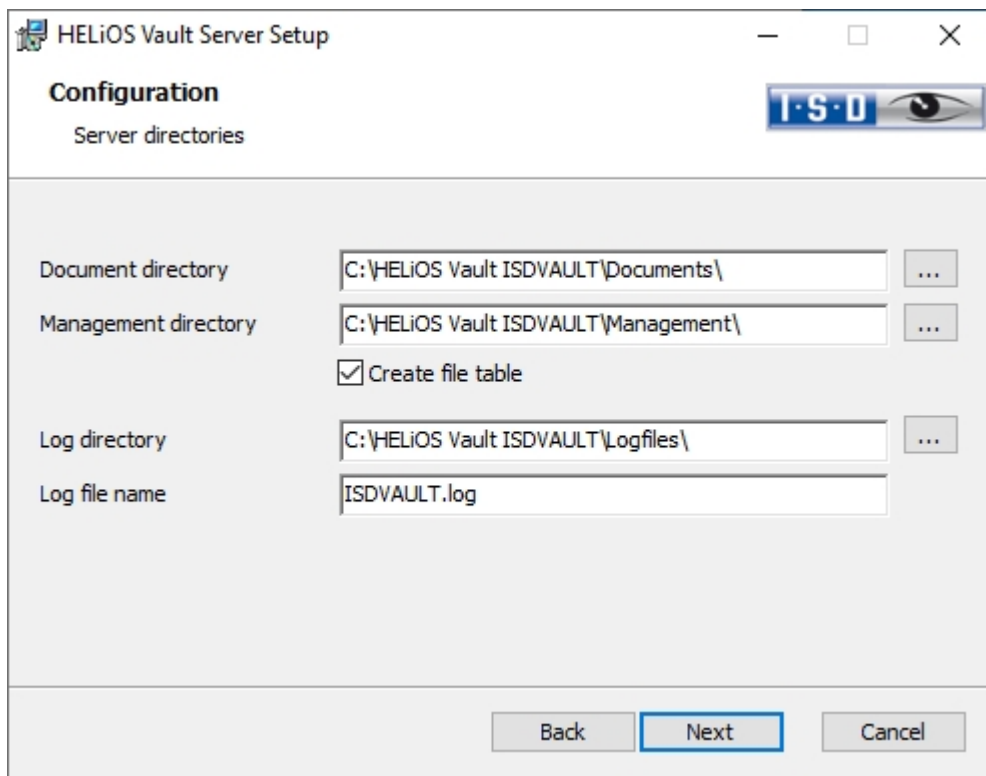


Enter the installation directory for the Vault Server.





Give the Vault Server a name, e.g. the name of your company, plus the location of your company. This name will be shown, for example, when you connect to the Vault Server from the Vault Client.

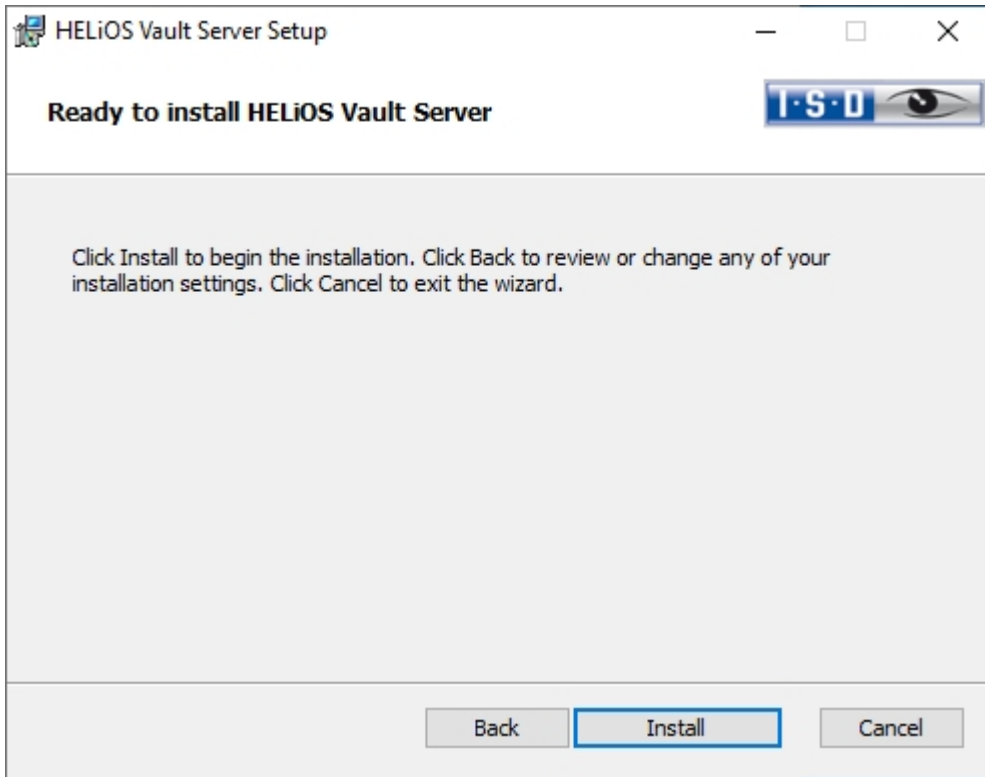


The Vault Server renames all documents that are managed in the database (e.g. SZA, DOC, XLS, ...) to \*.VDF. These VDF files are saved to the Document directory.

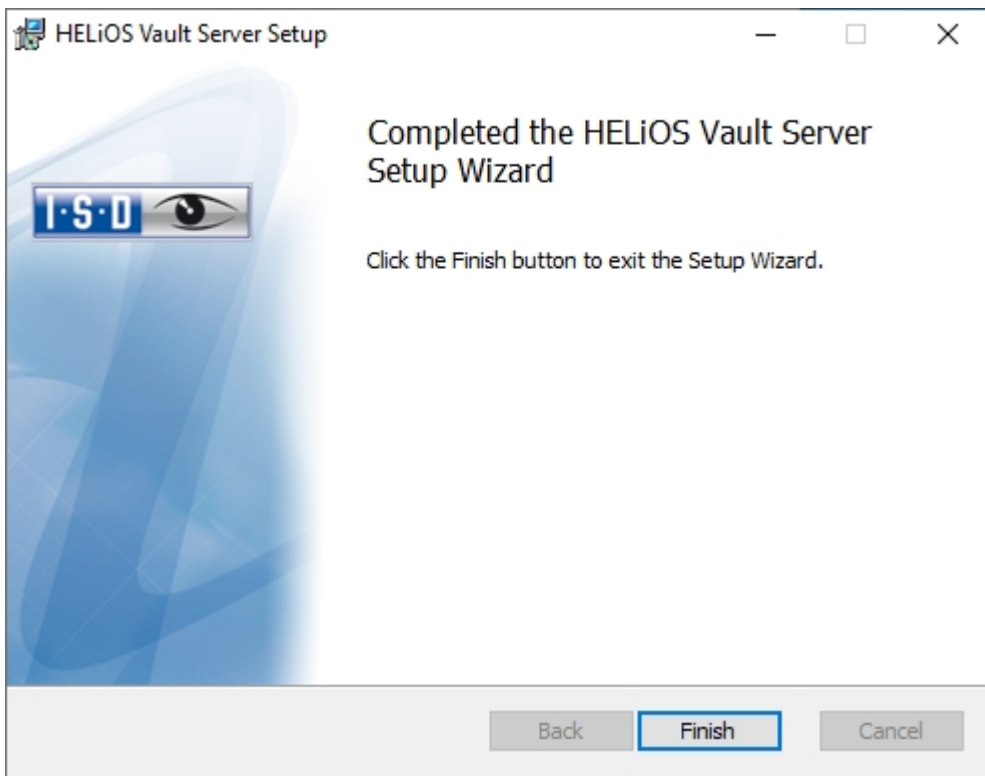
The files stored in the **Management directory** contain the assignments of the VDF file names to the “original file names”.

Log files (\*.LOG) are saved to the **Log directory**. They record each access to the VDF files.

Enter the name of the log file in the **Log file name** field. The name of the **Vault Server** would also be possible here. If the log file exceeds a certain length, it will be cut down and suffixed by the current date.



Click **Install**.

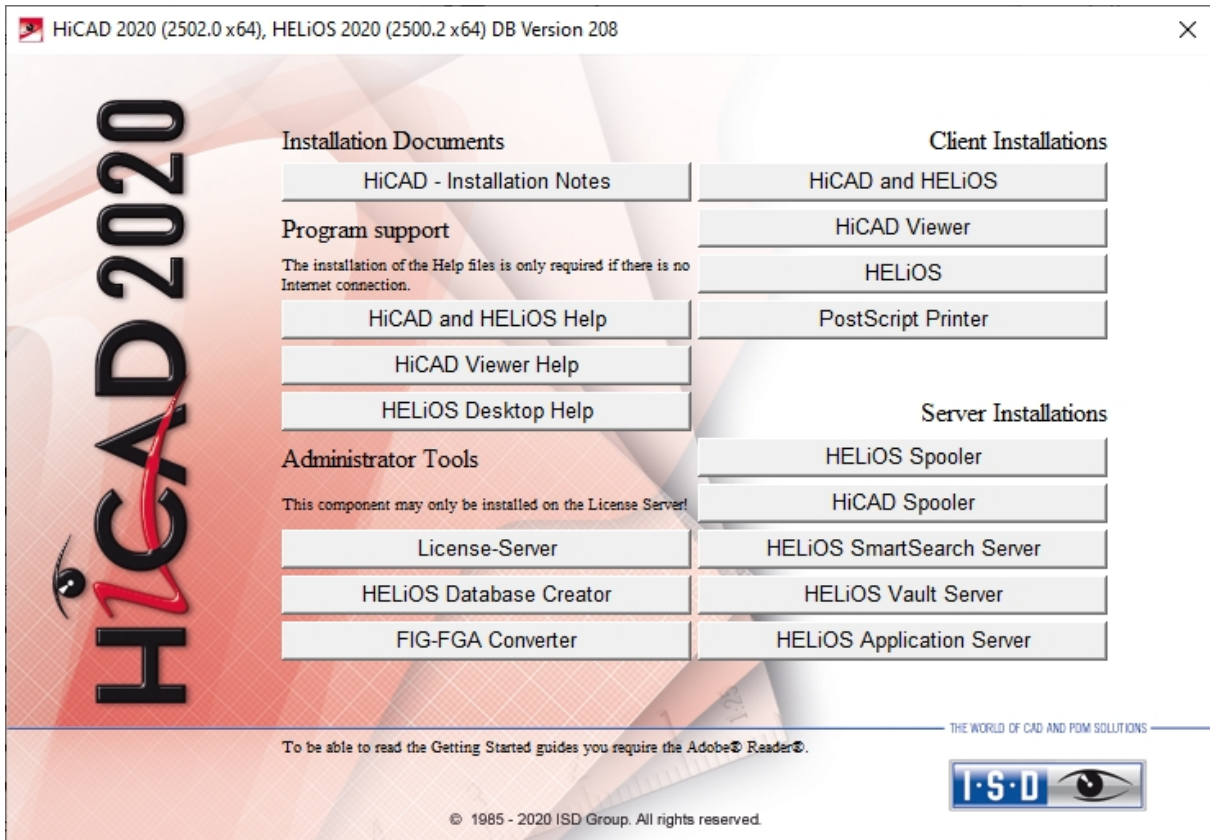


Click **Finish** to complete the installation of the Vault Server. You can now install further components from the selection mask.

## Installing the HELiOS Client

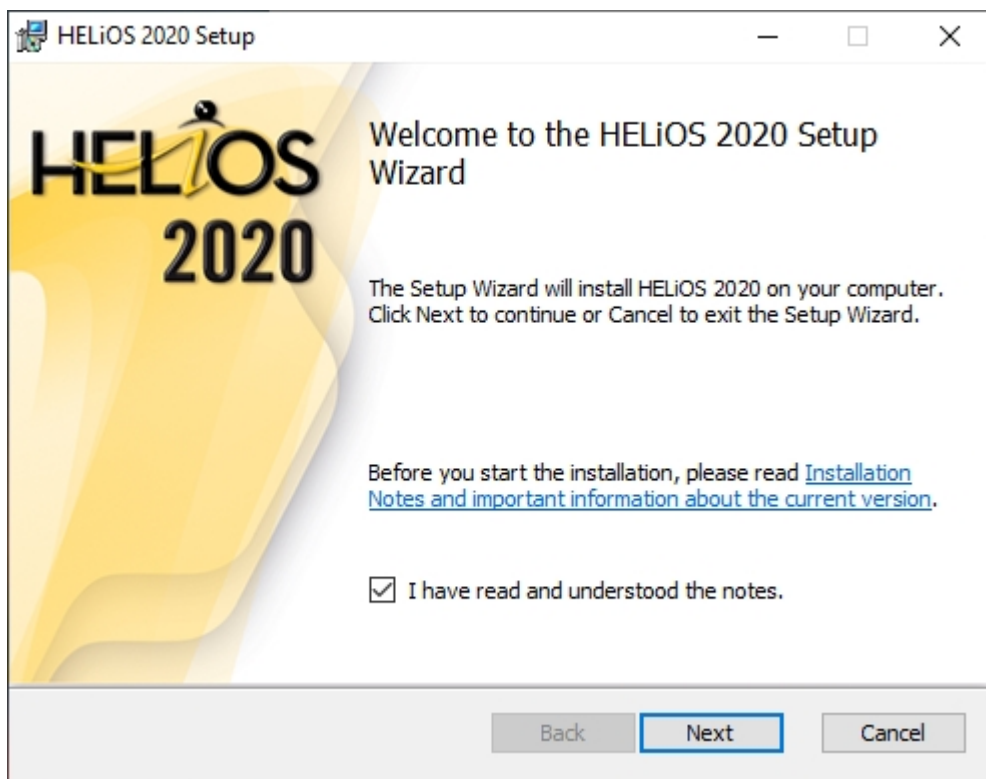
The HELiOS Client is normally automatically installed during the HiCAD installation. But of course, you can also install HELiOS separately. To install HELiOS, start Windows. If Windows has already been started, close all other applications and start the installation wizard.

In the installation wizard, click on the **Standard Edition** button. This will open the following selection mask. Leave this selection mask open, so that you can select the desired components one after the other.

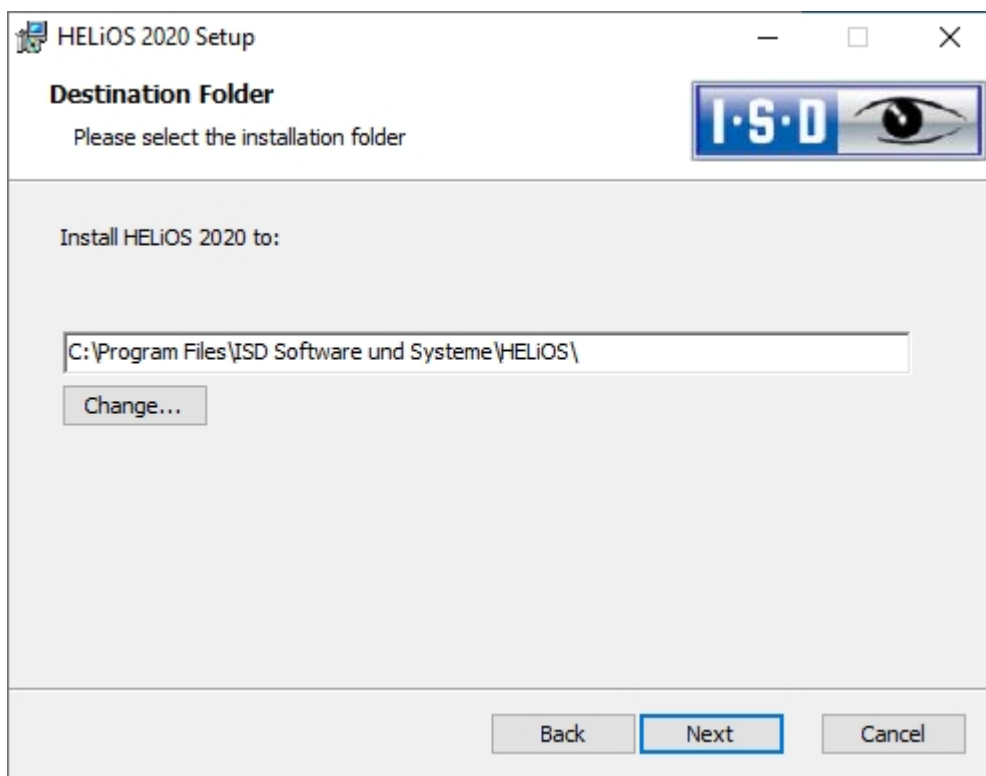


Click on the **HELiOS** button.

Before using HELiOS, **Microsoft .NET Framework** and the **Visual C++ Runtime Libraries** must have been installed on the computer; these packages will be installed as part of the installation if required.



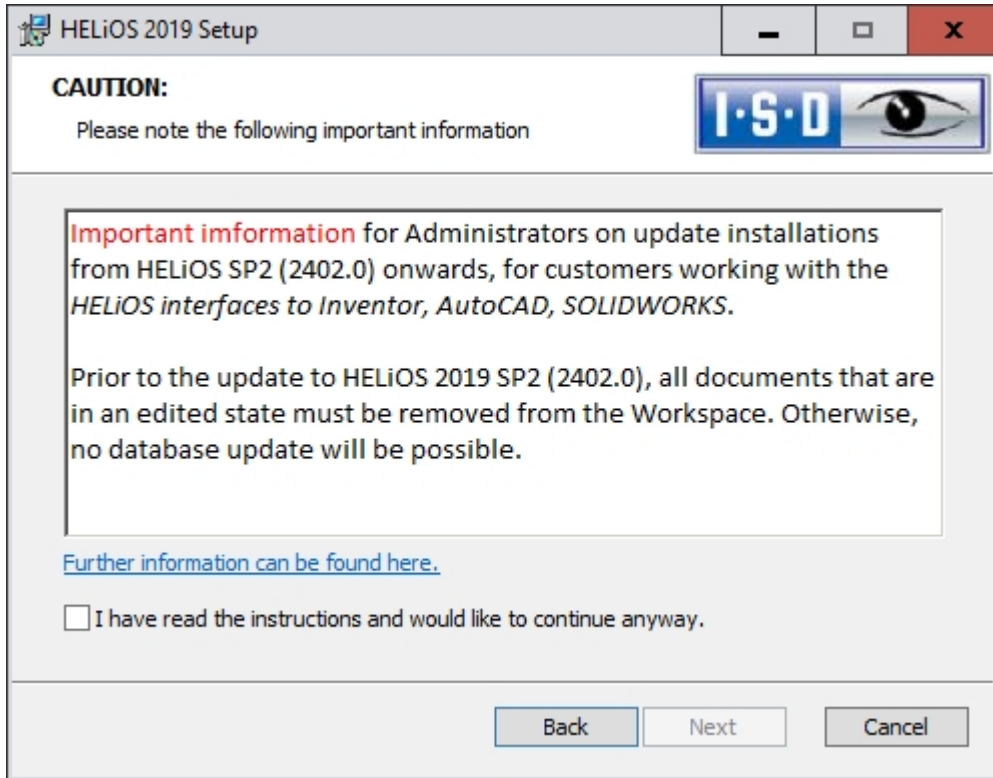
Please read this information carefully.



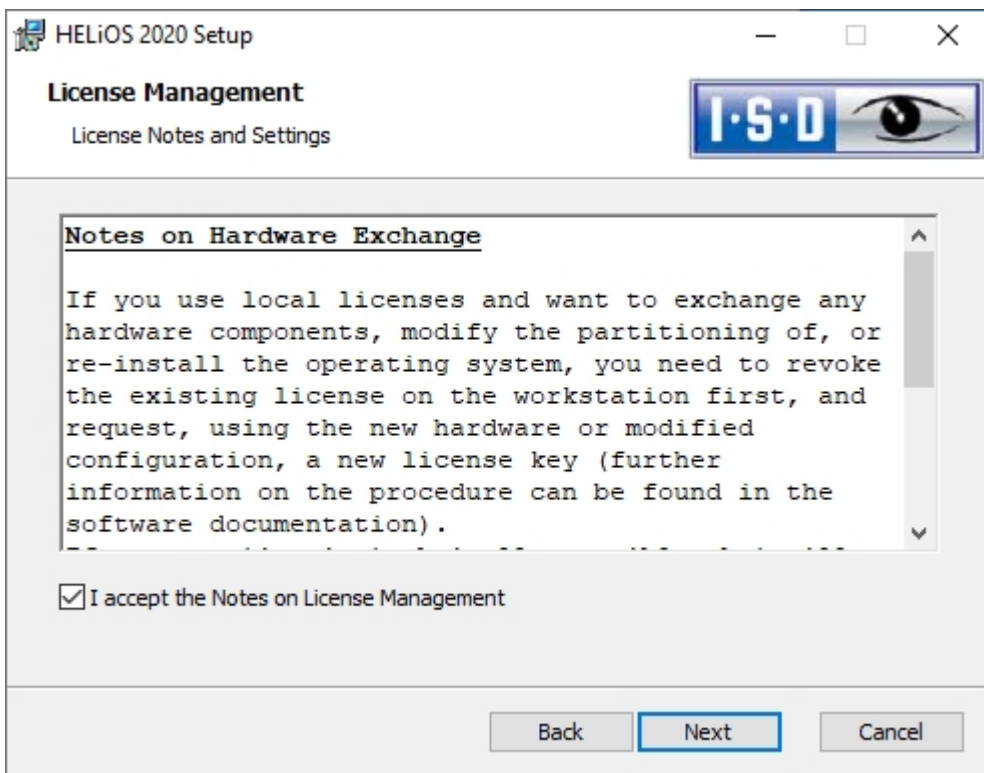
Select an installation directory.

In accordance with the current Microsoft guidelines, the HELiOS documents will be saved to C:\Users\Public\Documents\ISD Software und Systeme\ in case of a new installation. Only the Administrator has write permissions for the installation directory (C:\ProgramFiles\..).

If you work on several workstations without a Vault Server, you need to enter on each workstation the path of the document directory into the system file FILEGRUP.DAT. This means that the default path needs to be changed accordingly in all corresponding places of the FILEGRUP.DAT. The directory should be a shared network directory to which all Clients have access.



Please read these important notes on update installations for Inventor, AutoCAD and SOLIDWORKS carefully and activate the checkbox . Further information can be found here.



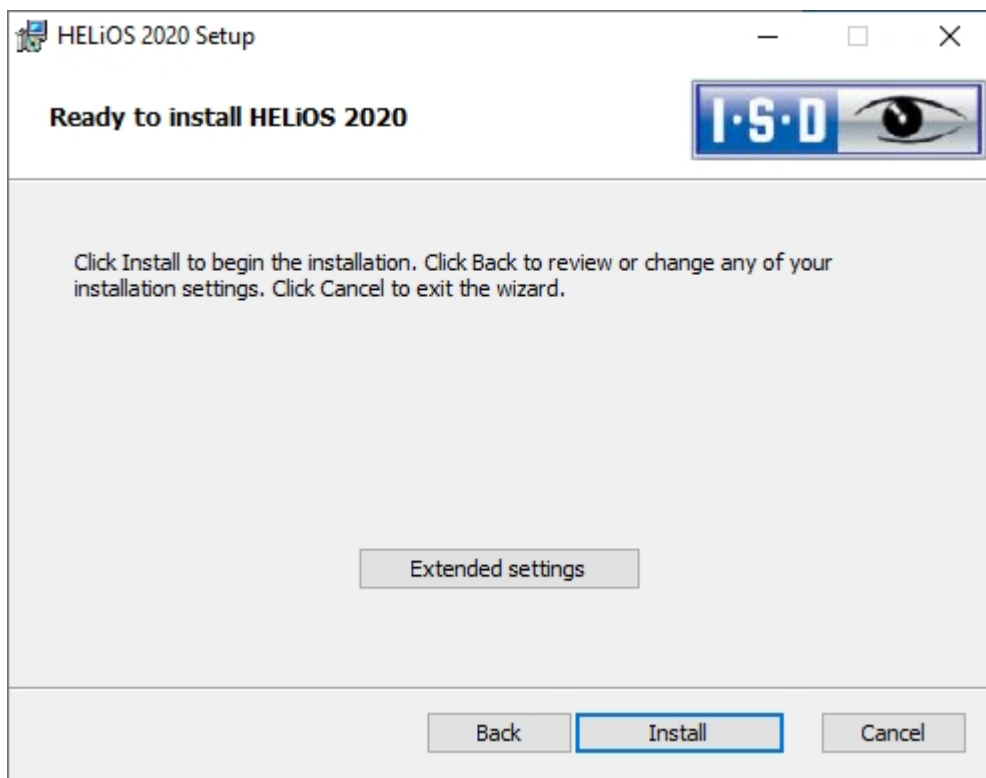
Please read the **Notes on Hardware Exchange** carefully.

### Hardware Exchange

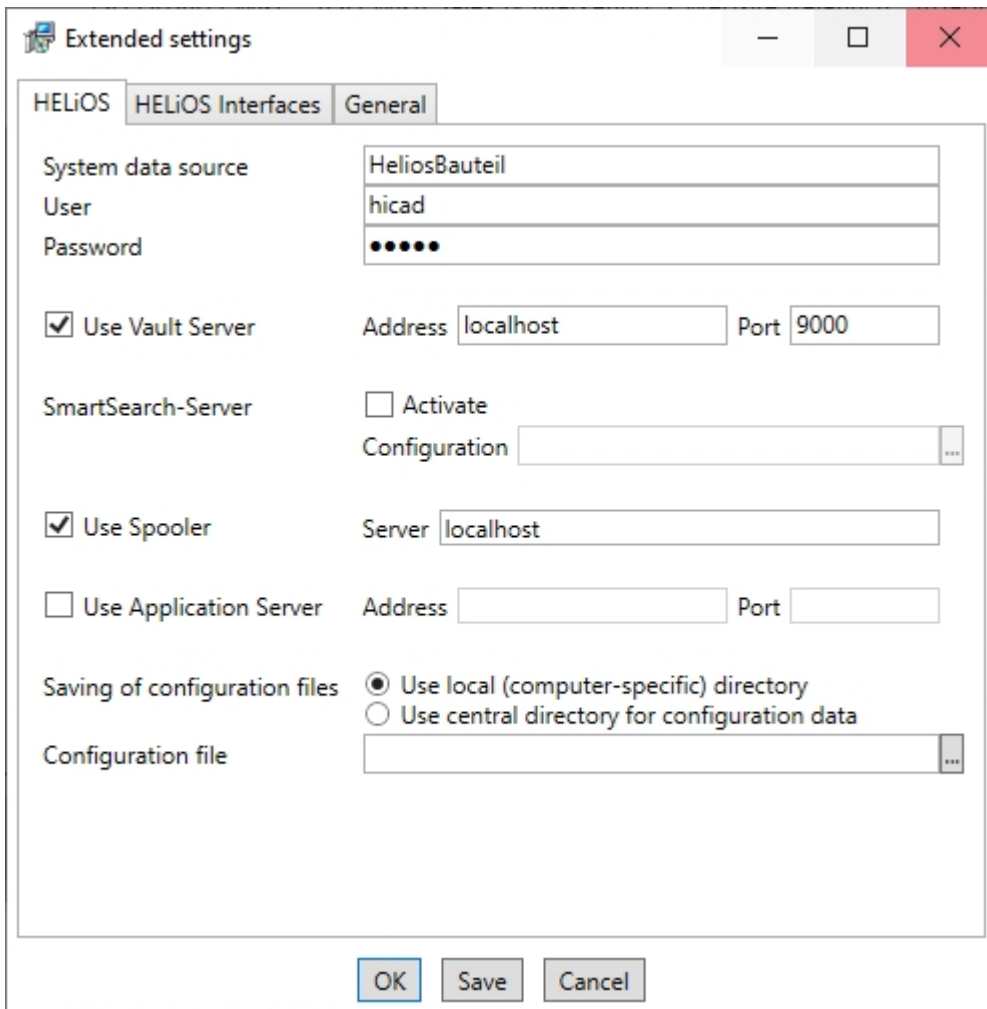
If you use local HiCAD/HELiOS licenses and want to exchange any hardware components, modify the partitioning of, or re-install the operating system, you need to revoke the existing license on the HiCAD/HELiOS workstation first, and request, using the new hardware or modified configuration, a new license key (further information on the procedure can be found in the software documentation).

If a revocation is technically possible, but will not be performed, the ISD reserves the right to charge costs in an appropriate amount for the reissuing of the license. If the license will not be revoked, or if such revocation is no longer technically possible, the ISD may request proof that the unrevoked license is no longer utilisable; in case of failure to produce such proof, the ISD reserves the right to refuse the transfer of the license to a new hardware.

Accept the notes to continue with the installation.




You can now start with the installation or modify the **Extended Settings** for HELiOS.



In case of a new installation you can specify an arbitrary name for the system data source. In case of an update, the existing data source will be offered. User and Password will be identical with the ODBC login.

If you use a Vault Server, activate the **Vault Server** checkbox. Enter the name of the Server in the **Address** input field, and the Server Port of the Vault Server in the **Port** input field. You already entered both during the installation of the Vault Server.

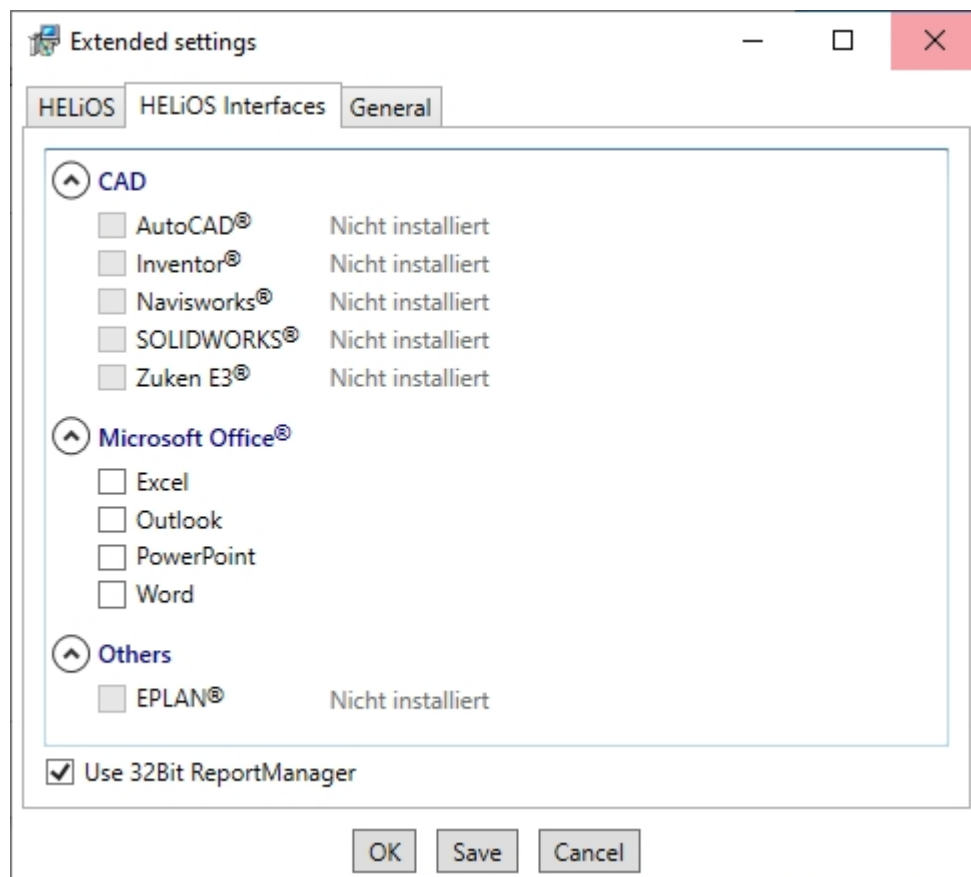
If you have not installed the Vault Server yet, you can do this now: Choose HELiOS Options > Database > General > Vault Server  and specify the connection. For activation you must then restart the HELiOS Desktop.

If you want to process your print jobs via the Plotmanagement of the ISD, you need to install a **Print Client** on each workstation. Activate **Use Spooler**. In the Server field, enter the name of the computer on which you install the Spooler. The Spooler collects the print jobs and processes them according to your settings.

Individual settings of HELiOS can be distributed to other users or workstations. To do this, create a ZIP file in HELiOS at **View > Settings > Export**.

During installation, if the option **Use central directory for configuration data (across computers)** is activated, you can save the configurations of the HELiOS Desktop to a central computer and select and import them at **Configuration file**.

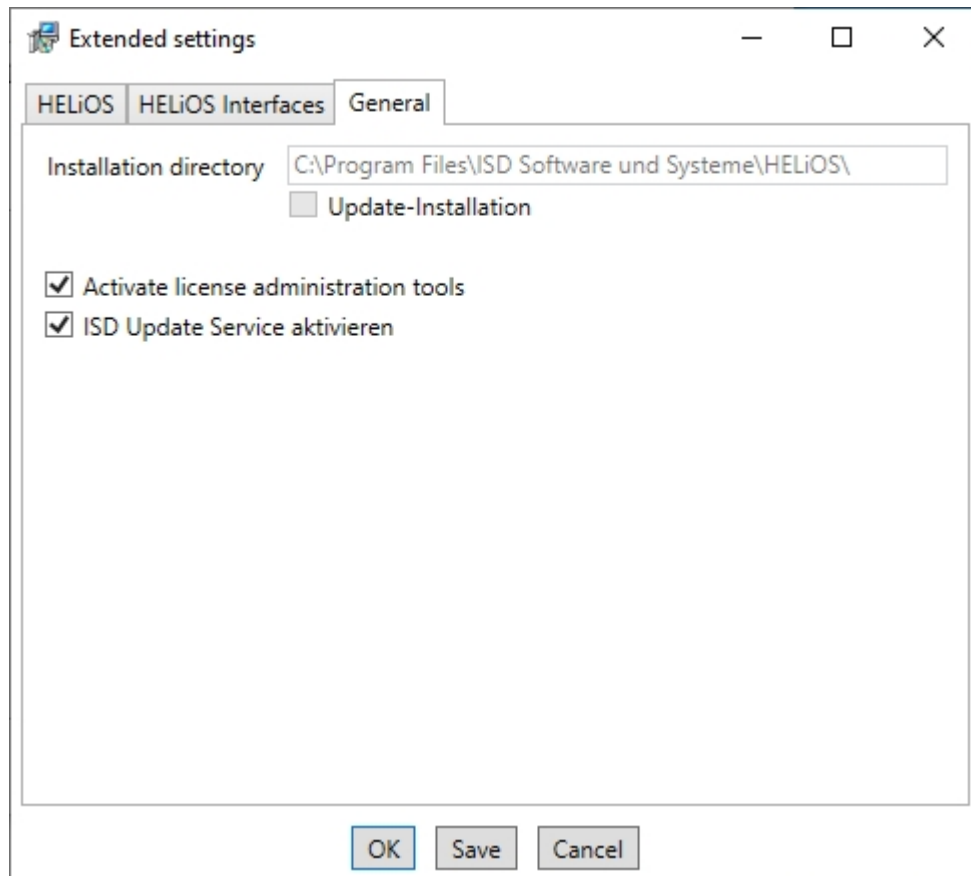




The availability of interfaces with HELiOS depends on the programs that are installed on your computer. You can only link 32Bit versions to HELiOS 32Bit versions, and only 64Bit versions to HELiOS 64Bit versions. An exception is the MS Office Interface, where you can link a 32 Bit Office to a 64 Bit HELiOS. Please note however that an additional, special ODBC connection will be required for old BOMs. In such cases, please contact the ISD Consulting team.

Multiple selections of HELiOS Interfaces are also possible. The HELiOS functions will be integrated in the programs that are linked to HELiOS.

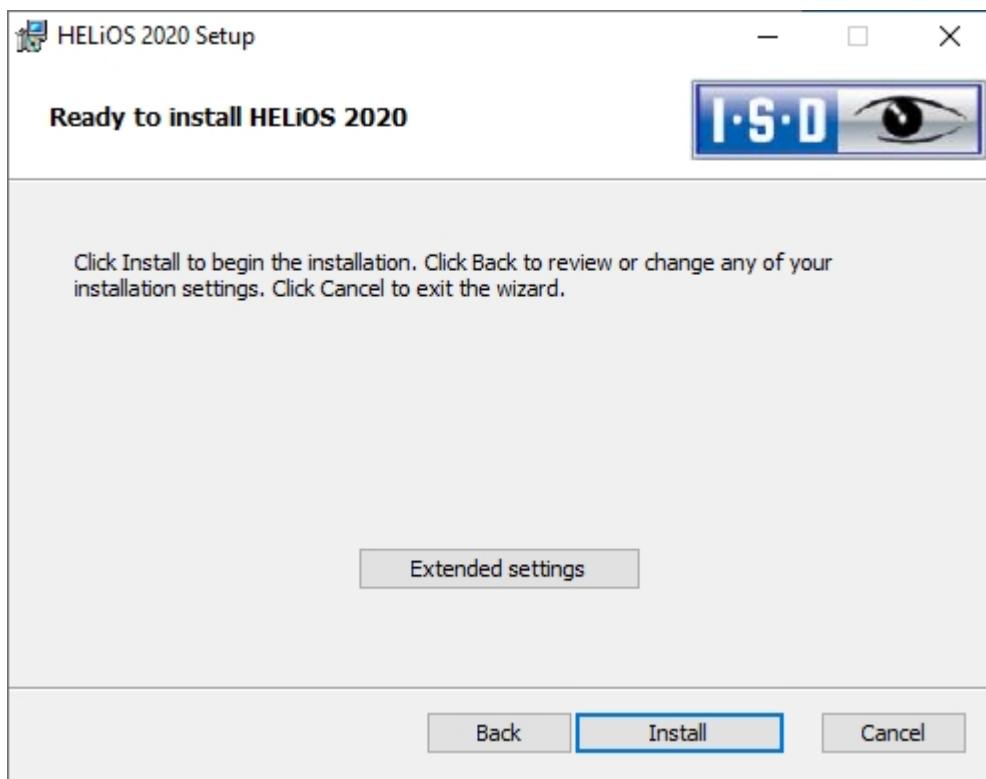
Please take a look at the Compatibility Matrix to check which interfaces to external software products are supported by HELiOS.



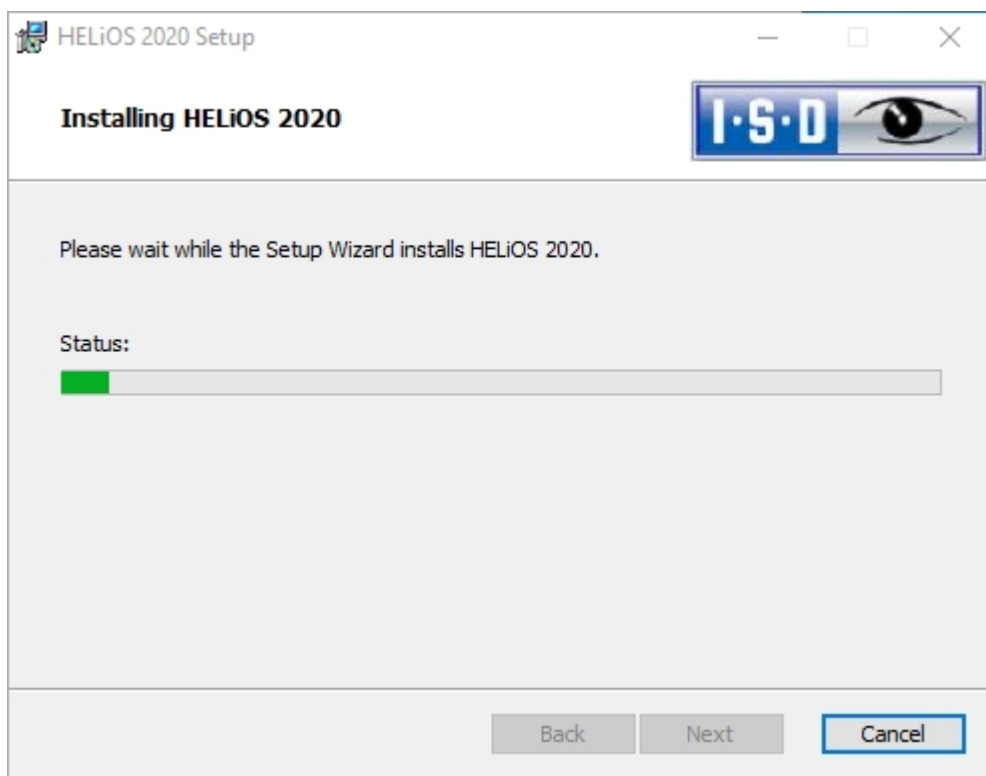
The **Activate license administration tools** checkbox must be activated for the management of server licenses.

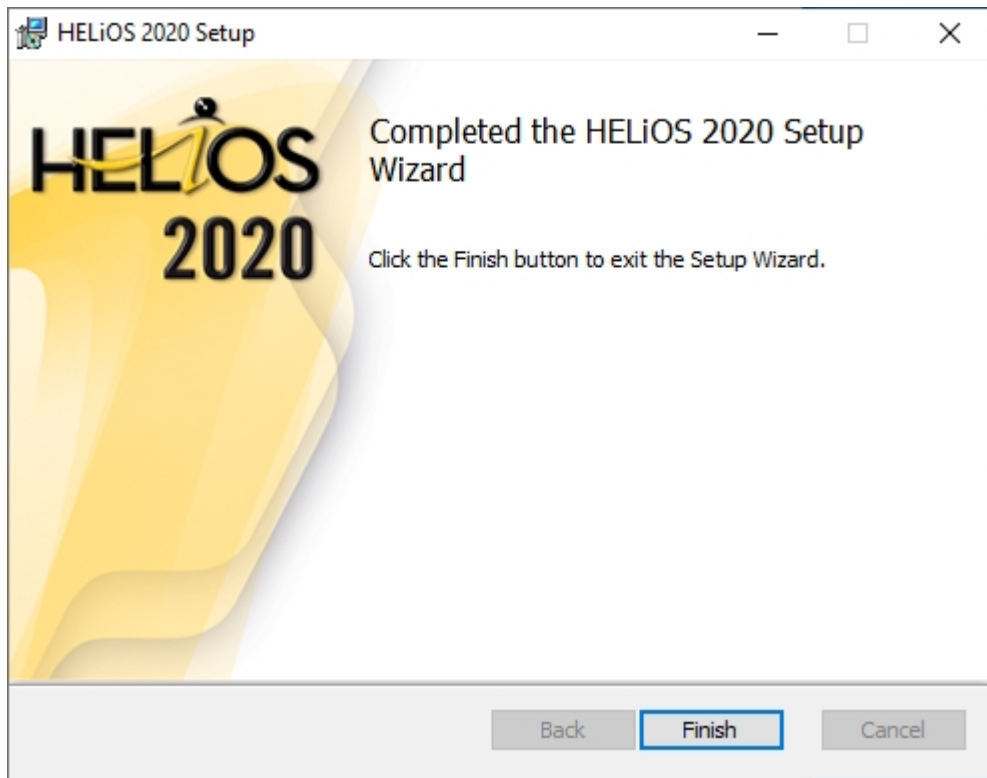
Click **Save** to save the **Extended Settings** to an **.ini file**. If you place the .ini file in the installation directory when installing server licenses, the settings will be applied.


Close the **Extended Settings** dialogue with **OK**.



Click Install.





After successful installation, you will find the **HELIOS**  shortcut on the Desktop of your computer for program start.

## Installing the HELiOS Spooler

### Important installation notes - please read carefully!

As the HELiOS Spooler (as of HELiOS 2015, V 2000.0) is an entirely new software, an update of the old Spooler is not possible. Before installing the new HELiOS Spooler, please make a record of the old Spooler's settings, uninstall it, and then adjust the settings of the new Spooler accordingly.

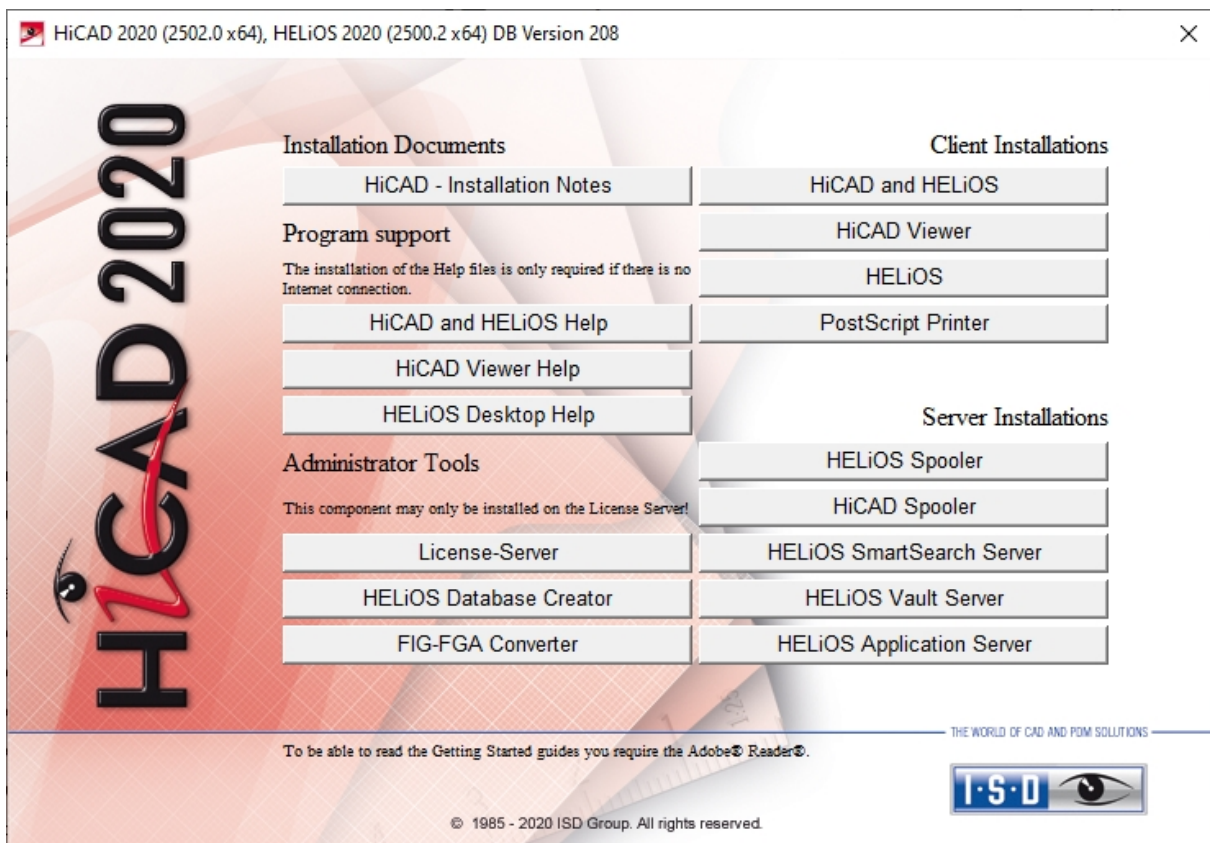
Further information can be found in the HELiOS Online Help.

The HELiOS Spooler is only available as a 64Bit version, and supports only 64Bit applications.

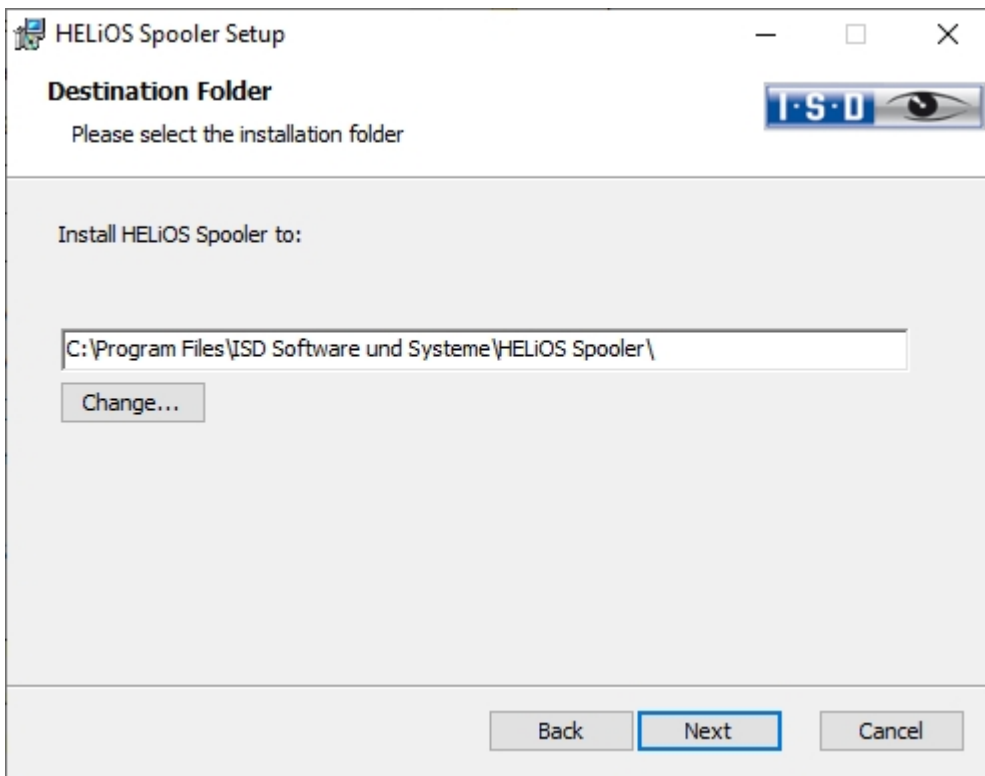
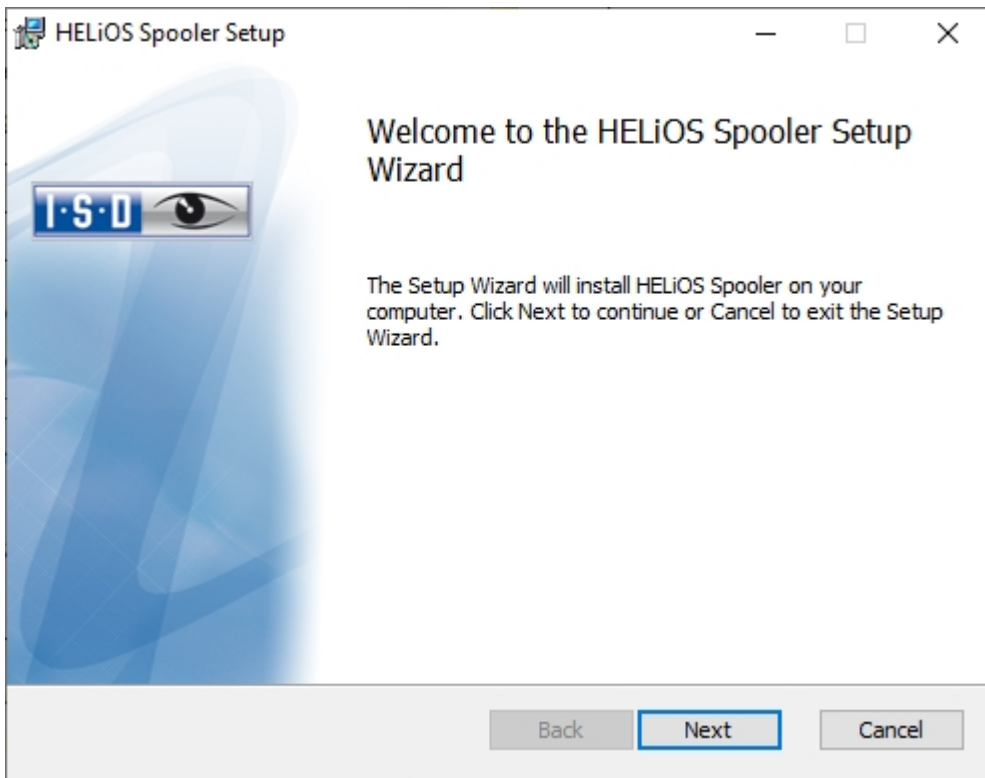
Start Windows to install the HELiOS Spooler. If Windows has already been opened, close all other applications and start the installation wizard.

In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

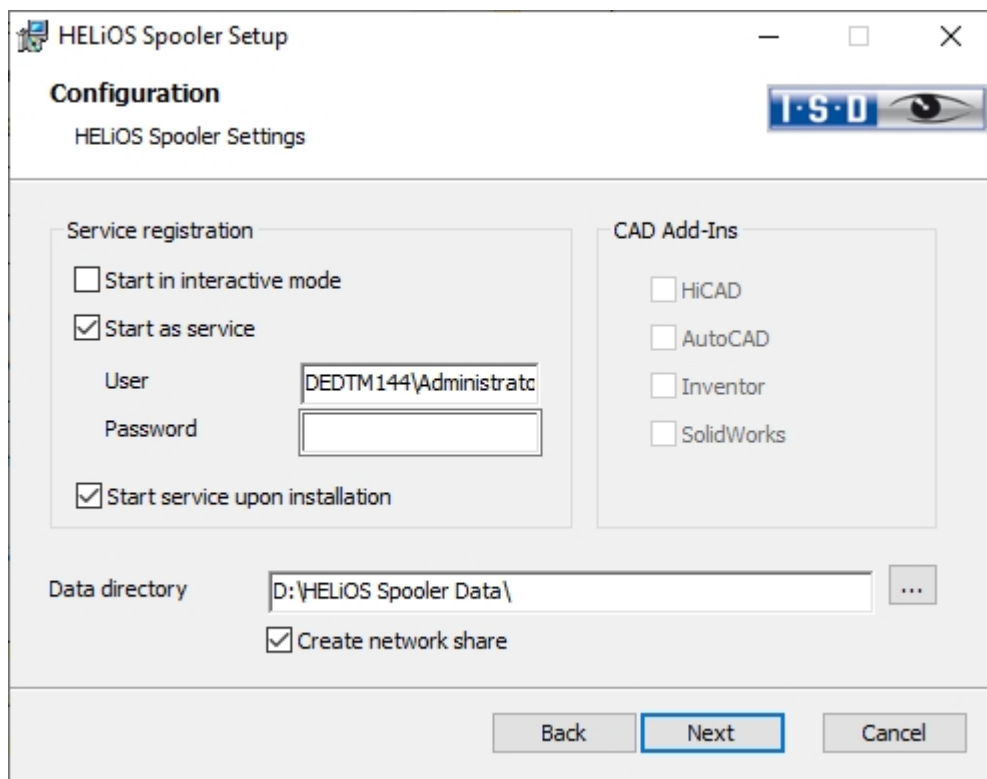
Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.



Click on the **HELiOS Spooler** button.



Enter the installation directory for the software.



In the Service registration area you can choose between the options Local system and User account.

A part of the Spooler is started by the system as a background process (Windows service). For safety reasons it is recommended to create a **Windows User account**, with **User name** and **Password** with read and access permission, before installation.

If you do not know the user yet, you can choose Local system. The Spooler will then run, initially without access to any printers, as a simple Windows system service. Now, select **Control Panel > Administrative Tools > Services**. Right-click **HELiOS Spooler** and select **Properties**. On the **Log On** tab, switch to **This account** and enter the **User name** and the **Password**.



#### Important:

If the Spooler user's password later changes or expires, the password must be reassigned to the HELiOS Spooler service in the Windows **Control Panel** at **Management > Services** via **Right-click > Properties > Log On**.

If the **Start service upon installation** option is active, the Spooler service will not require a manual start after installation.

Normally, the HELiOS Spooler runs as a Windows Service in the background. In this standard configuration the Spooler process will be started by the operating system in a special session which is not visible for the user. Therefore, the process will even continue running after the Spooler user has logged off from the computer. Unfortunately, internal tests have found that problems may occur with this type of operation in conjunction with some CAD systems; currently this applies in particular to the interface with SOLIDWORKS.

If you are considering using the HELiOS Spooler together with SOLIDWORKS, we therefore recommend choosing the **Start in interactive mode** option during installation in order to avoid problems. When this option has been selected, the Spooler will no longer be set up as a service, but will be started directly in the foreground via the Administration UI. During this type of operation, the Spooler process will appear in the form of a small text window in the window bar (Caution: When you log off from the Server, the Spooler process will also be ended here!)

For starting the “interactive” configuration of the Spooler automatically, the file **Helios.Spooler.exe** from the installation directory must be invoked with the option “—no service”, for instance, either from the “Autostart” folder or via **Windows task planning**. If you have further questions, please contact our ISD Consulting team.

Select the data directory. Activate the Create network share checkbox to enable the communication with the **PrintClient**. If the network share is not created during installation, it must be created manually afterwards. Since special settings will be required here, we recommend contacting our Consulting team.

Choose the CAD system that you want to link to the HELiOS Spooler, and click **Next**.

The screenshot shows the 'HELiOS Spooler Setup' dialog box, specifically the 'Database connection' section. The window title is 'HELiOS Spooler Setup' and the subtitle is 'Database connection'. Below the subtitle is 'Settings for connection with HELiOS DB'. There is a logo with 'I.S.O' and an eye icon. The form contains three dropdown menus: 'System data source' set to 'HeliosBauteil', 'HELiOS User' set to 'Administrator', and 'HELiOS Group' set to 'PDM-Administratoren'. A checkbox 'Use Vault Server' is checked. Below it, 'Address' is 'ISDVault' and 'Port' is '9000'. At the bottom are 'Back', 'Next', and 'Cancel' buttons.

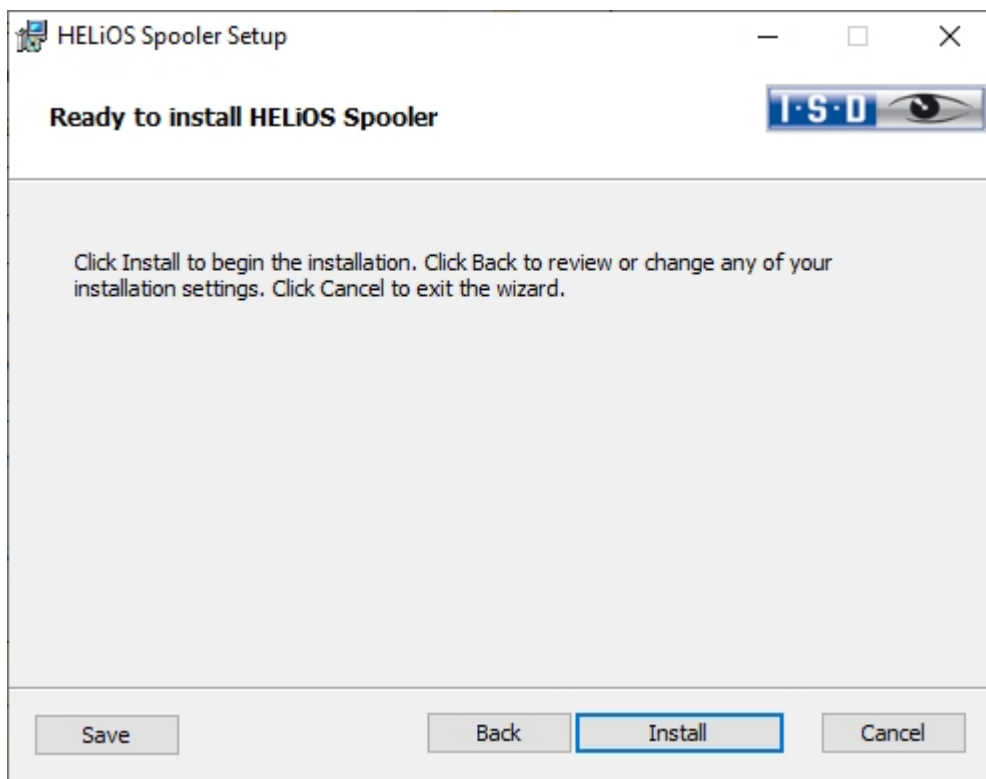
In this dialog window you will be asked for the login of the database user, which is the login of the (SQL) database system.

Under **System data source** you must then select the corresponding ODBC database connection. The **HELiOS User** via which the Spooler will run is also selected here. It is important that this user has administration rights and is also assigned to the **HELiOS Group** "PDM Administrators" at this point. Otherwise you will receive an error message.

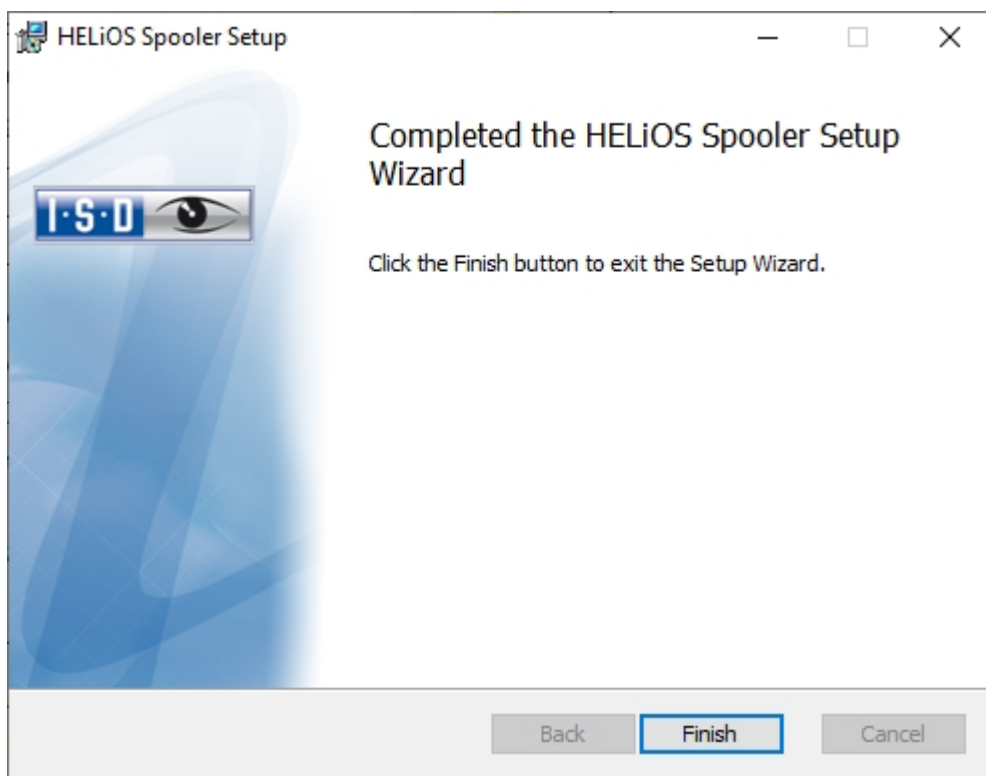
Activate **Use Vault Server** and enter the **Address** and **Port** of the Vault Server installed in the system for your MultiCAD operation.

Click **Next**.





Click **Install**.



Click **Finish** to complete your installation.

After successful installation, the HELiOS Spooler can be found in the program folder.

## Installing the HELiOS SmartSearch Server

The **SmartSearch** in HELiOS allows a quick retrieval of parts, documents, folders and projects by means of a (also object-) comprehensive meta data and full text search.

To be able to use the **SmartSearch**, you need to install an index server, the so-called **HELiOS SmartSearch Server**, on your system. The only requirement for installation is Java Runtime Environment. If no Java Runtime Environment has been installed on the Server yet this needs to be done now.



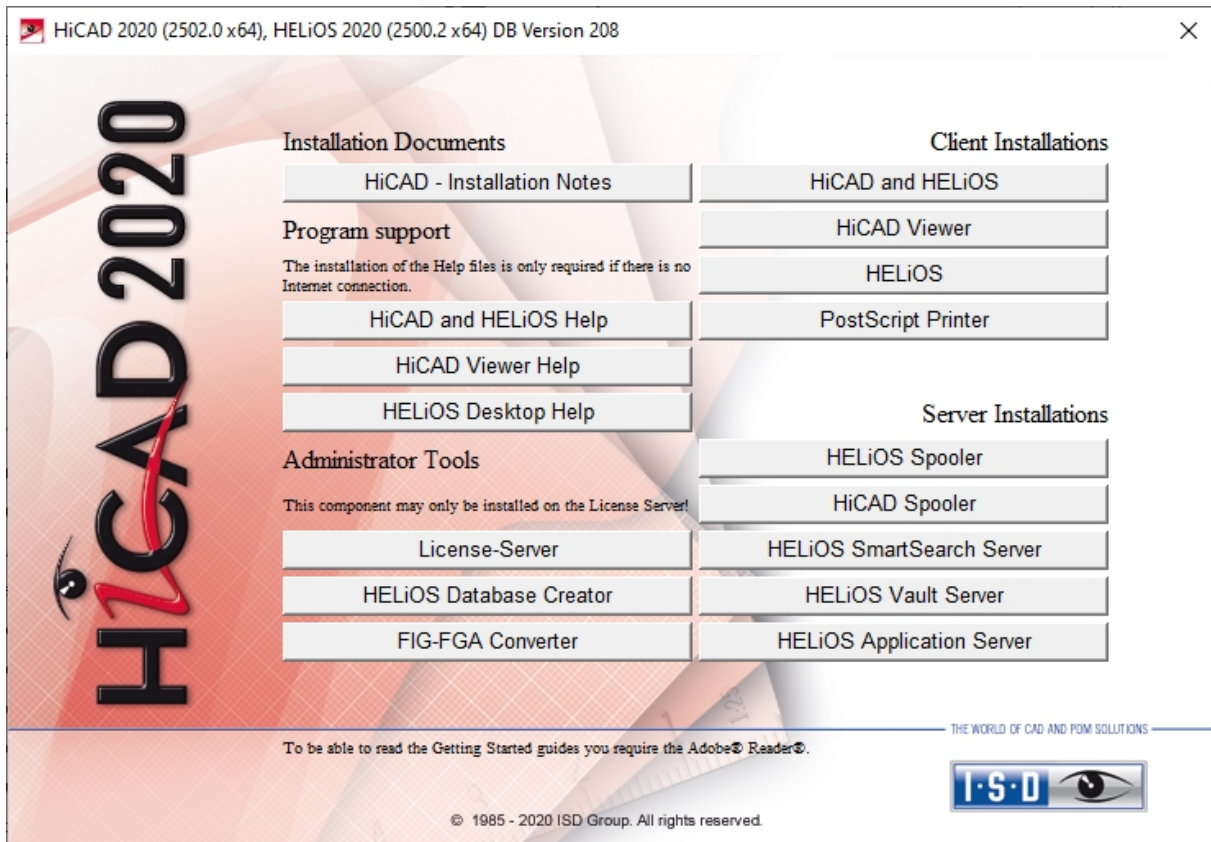
**Please note:**

The SmartSearch functions have to be activated by a registry entry per each workplace. For this, the provided file EnableSmartSearch.reg from the installation directory HELiOS SmartSearch can be executed on the respective computer.

Start Windows to install the HELiOS Smart Search Server. If Windows has already been opened, close all other applications and start the installation wizard.

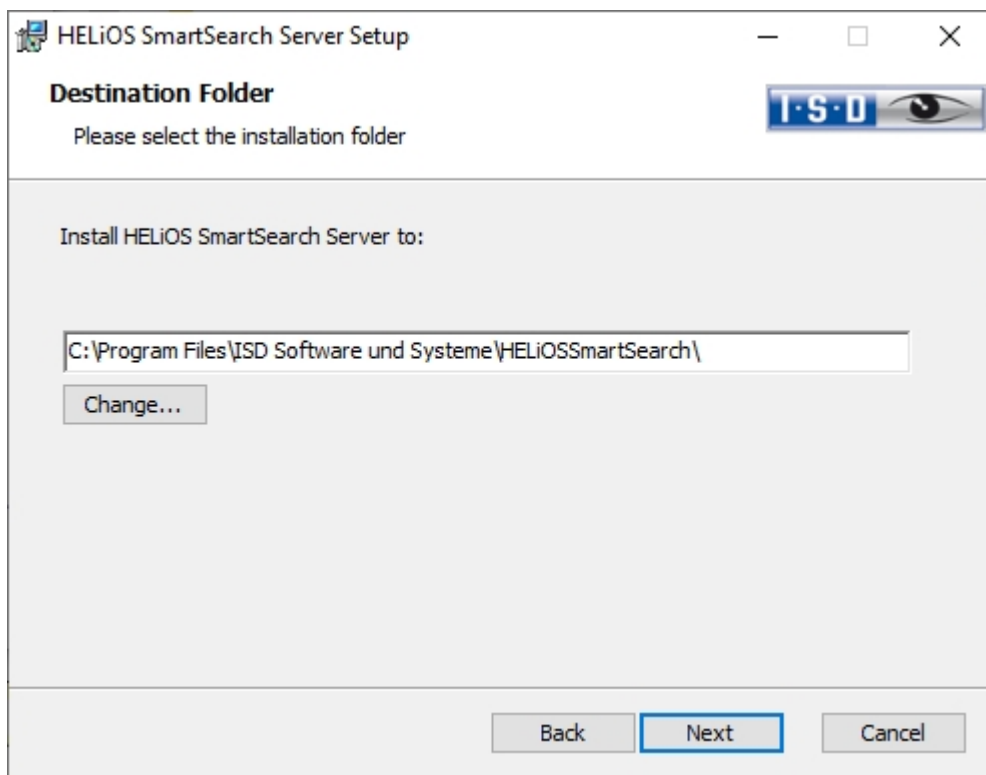
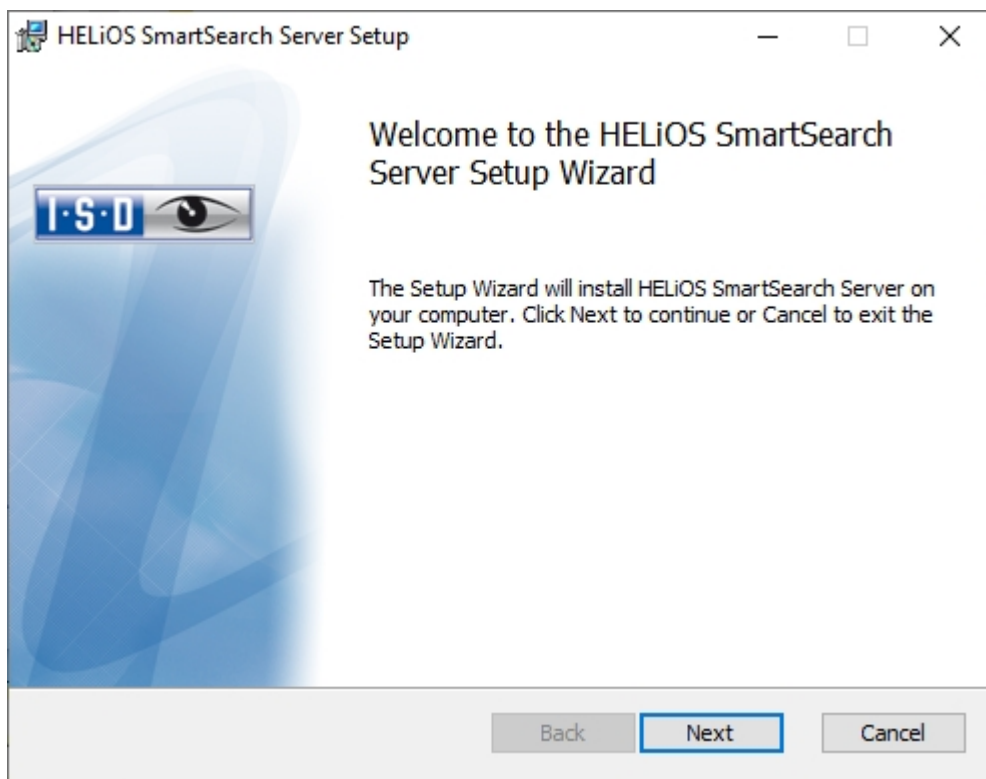
In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.

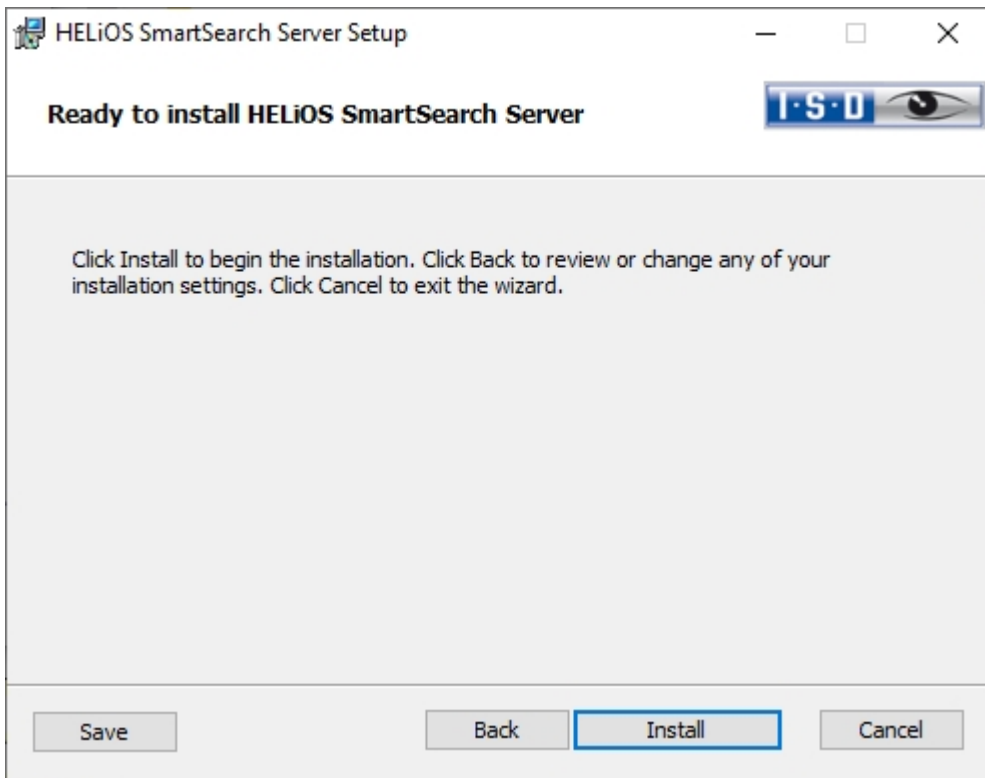


Click on the **HELiOS SmartSearch Server** button.

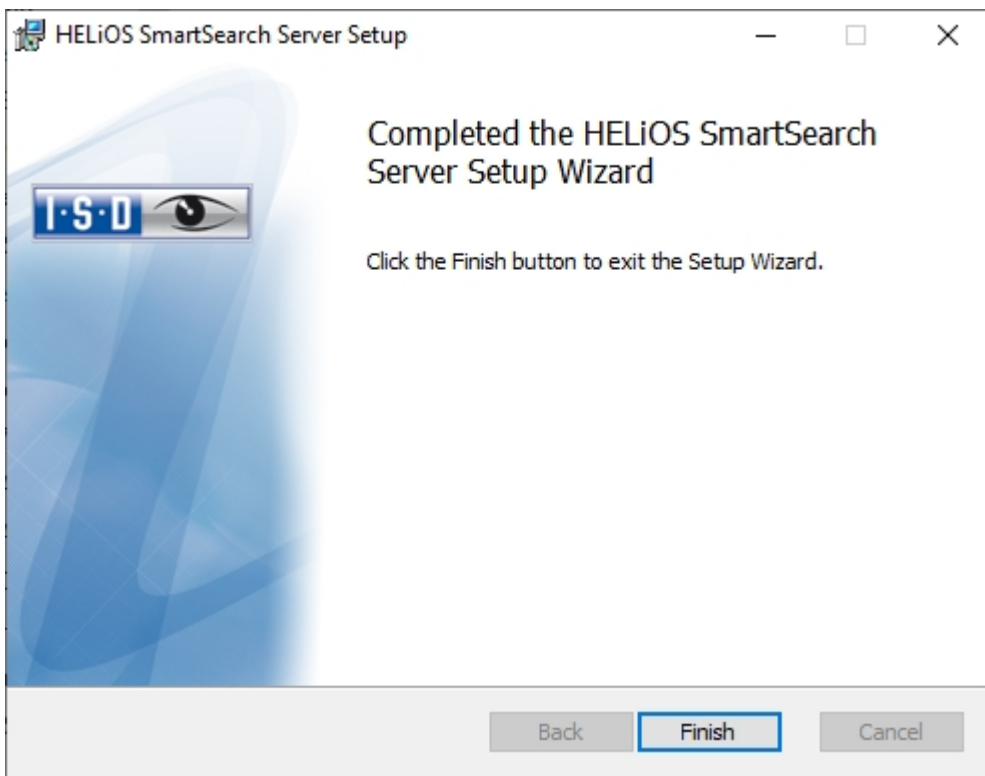
If Java Runtime has not been installed on your system yet, this must be done prior to the actual installation.



Enter the installation directory for the HELiOS SmartSearch Server and click **Next**.



Click **Install**.



Click **Finish** to complete your installation.

## Installing the Trial Edition (Demo Version)

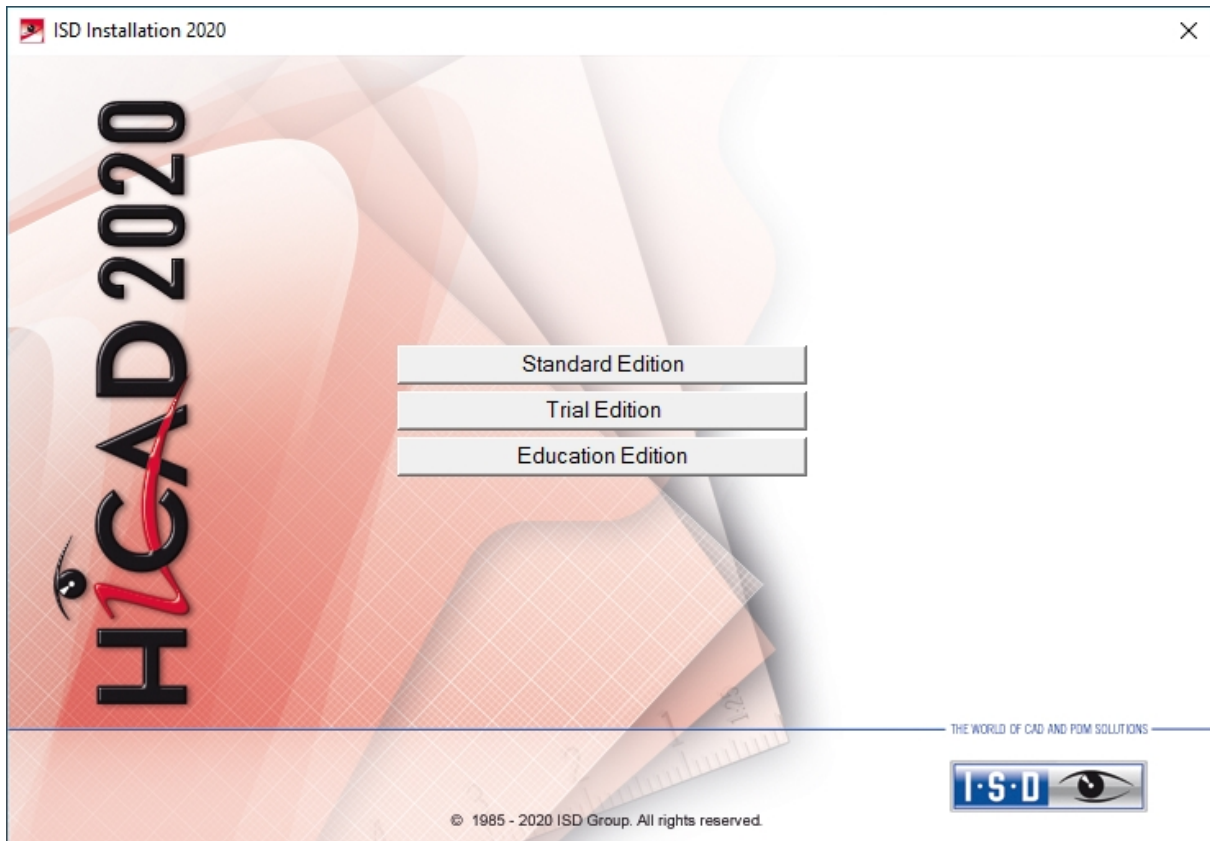
The Trial Edition (Demo version) has a changed data format, which allows a reading of data out of the Standard Edition, but not a writing of data back to it (i.e. in a Standard Edition the data format of special versions is not readable!). For printouts, plot stamps will always be output.



### Please note:

The license is free and valid for 30 days from the date of installation. Its transfer to other computers after its activation is not possible.

Start Windows to install the HiCAD Spooler. If Windows has already been opened, close all other applications and start the installation wizard.

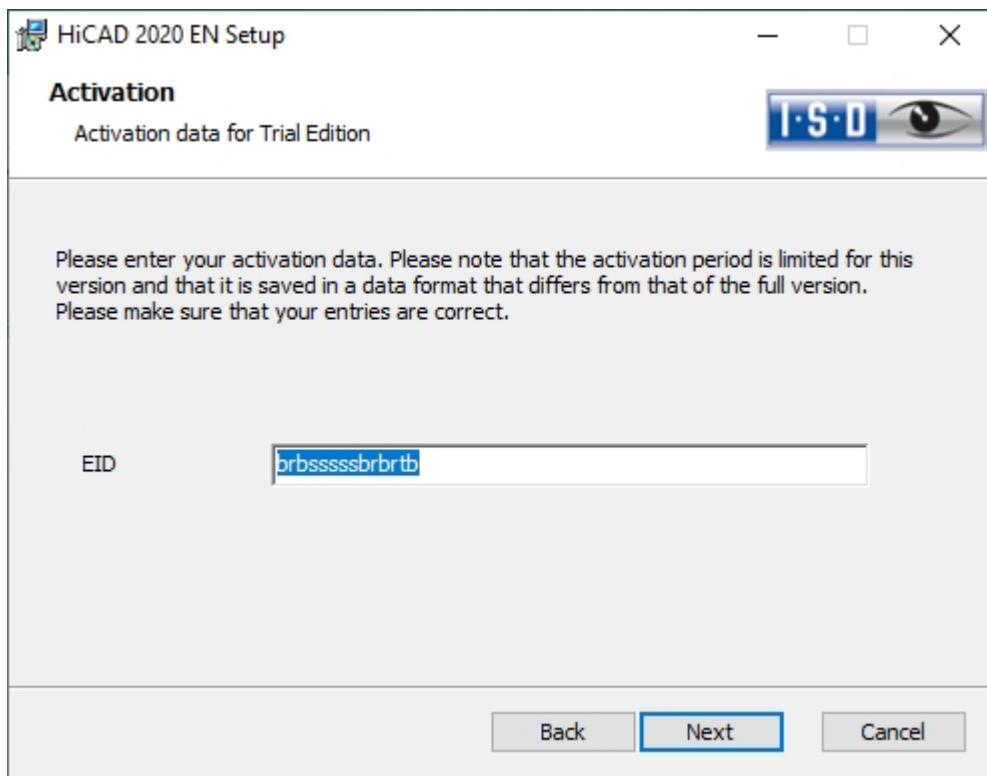


In the start mask of the Installation Wizard, click **Trial Edition**.

Before using HiCAD/HELiOS, **Microsoft .NET Framework** and the **Visual C++ Runtime Libraries** must have been installed on the computer; these packages will be installed as part of the HiCAD installation if required.

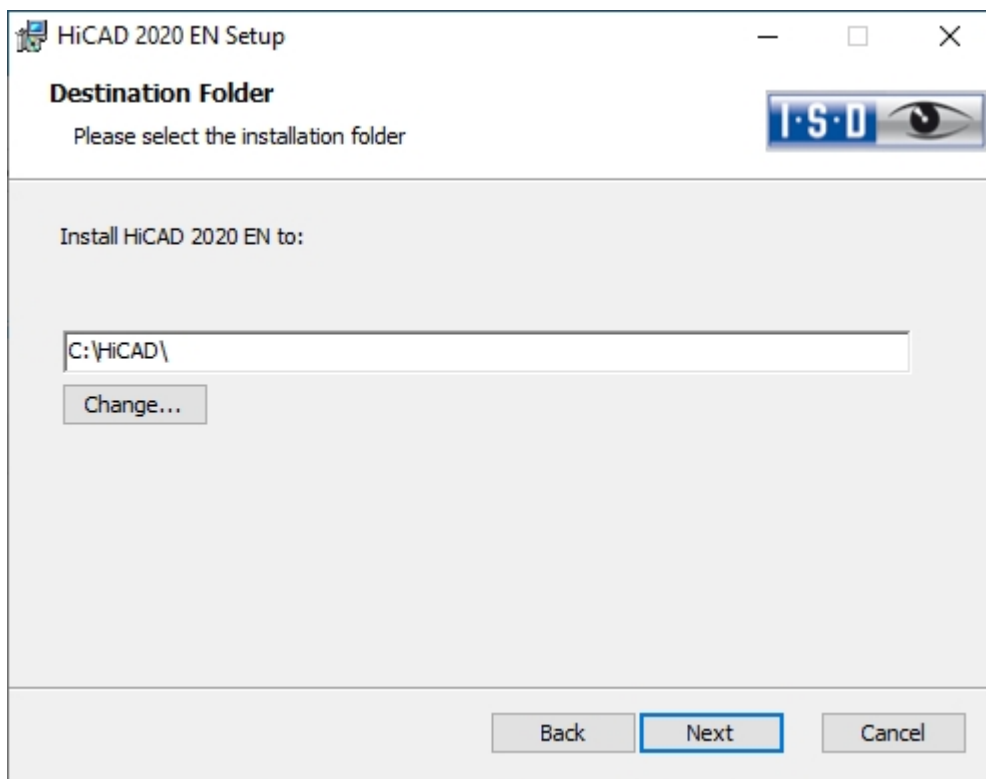


In the **Welcome...** window, click **Next**.

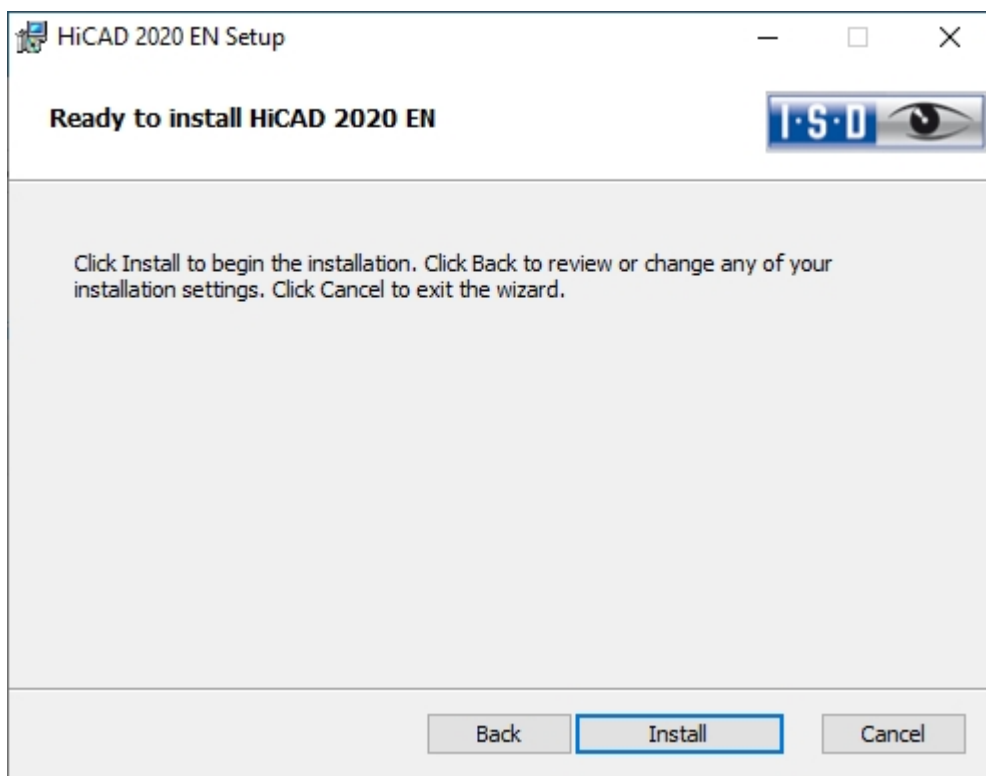


Enter the activation data for product activation and click **Next**.

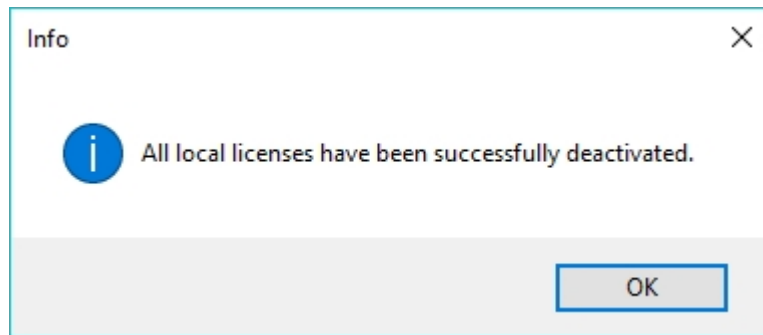
To obtain the activation data, please fill in the form on our website at [isdgroup.com](http://isdgroup.com).



Install the program to the ...\\Trial Edition folder.



Click **Install**.



Click **OK** to complete the installation.

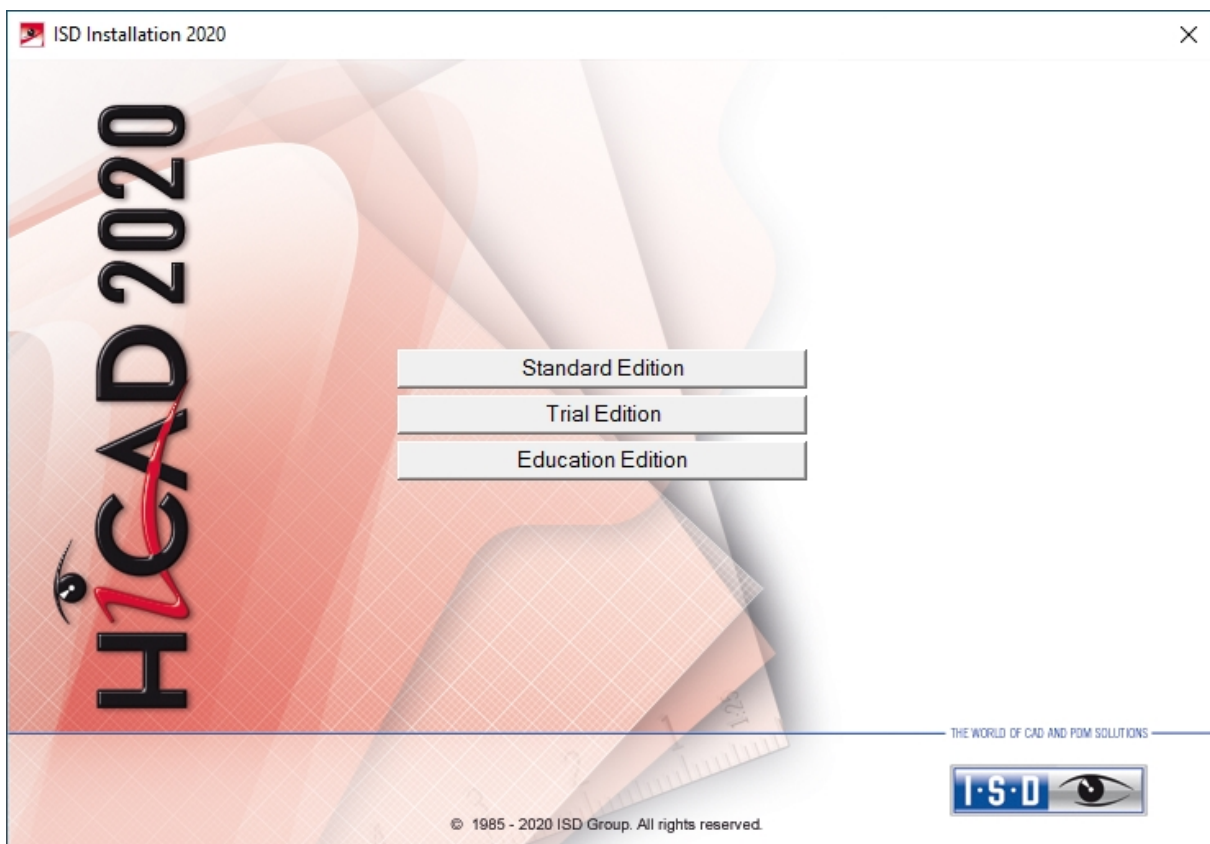


## Installation Education Edition (for Students)

The Education Edition (Student Version) is a fully functional standard version. The license is free and valid for 1 year (365 days). It can be activated and deactivated with the ISD License Manager, which will be available after installation (see Chapter 7.3).

The drawings (.SZA) and parts (.KRA) created with Education Edition can not be loaded with the Standard Edition. In case if a file (.SZA or .KRA) created with the Education edition is opened with a Standard Edition, an appropriate message will be sent. The title bar of the HiCAD interface will show the text HiCAD Education Edition: Not for commercial purposes.

If the Autostart function has been switched off in the operating system, you must run the setup.exe file in the root directory of the DVD for installation. Only in this way will be ensured that the version of the operating system will be correctly recognized and that the correct HiCAD version will be installed.

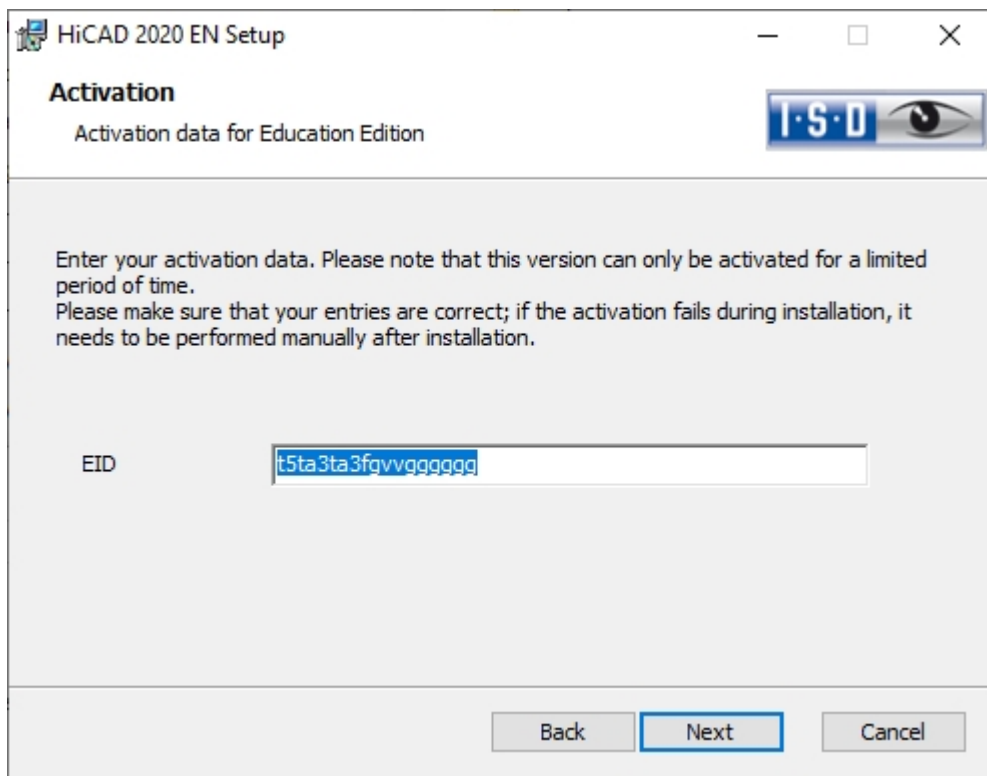


Click on the **Education Edition** button.

Before using HiCAD/HELiOS, **Microsoft .NET Framework** and the **Visual C++ Runtime Libraries** must have been installed on the computer; these packages will be installed as part of the HiCAD installation if required.

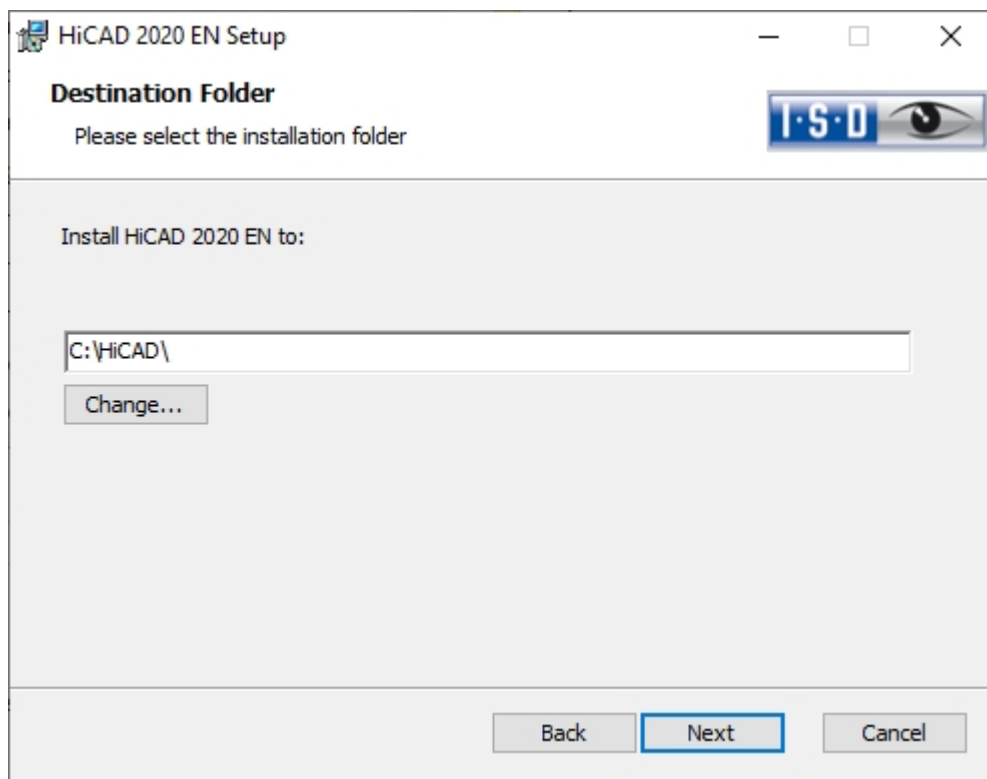


Click **Next** to start the installation.

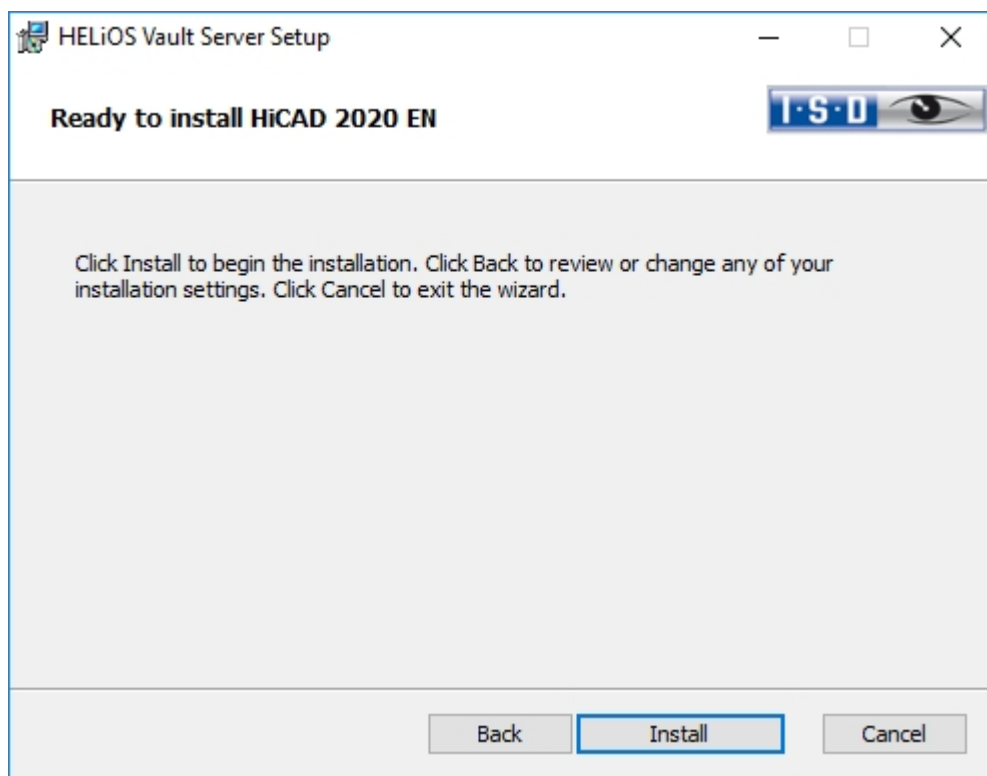


Enter the activation data for product activation and click **Next**.

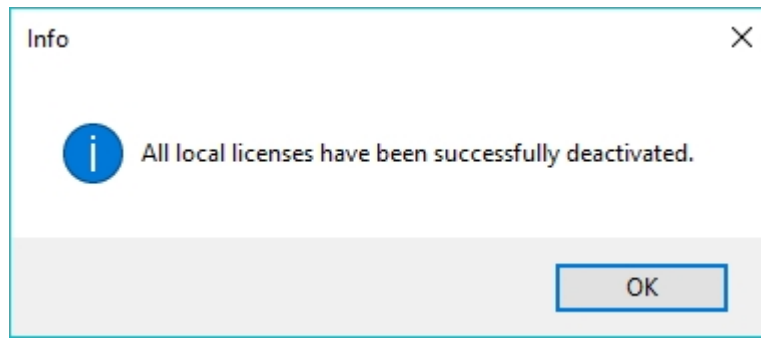
To obtain the activation data, please fill in the form on our website at [isdgroup.com](http://isdgroup.com) and upload your student identity card or your matriculation certificate.



Select an installation directory.



Click **Install**.



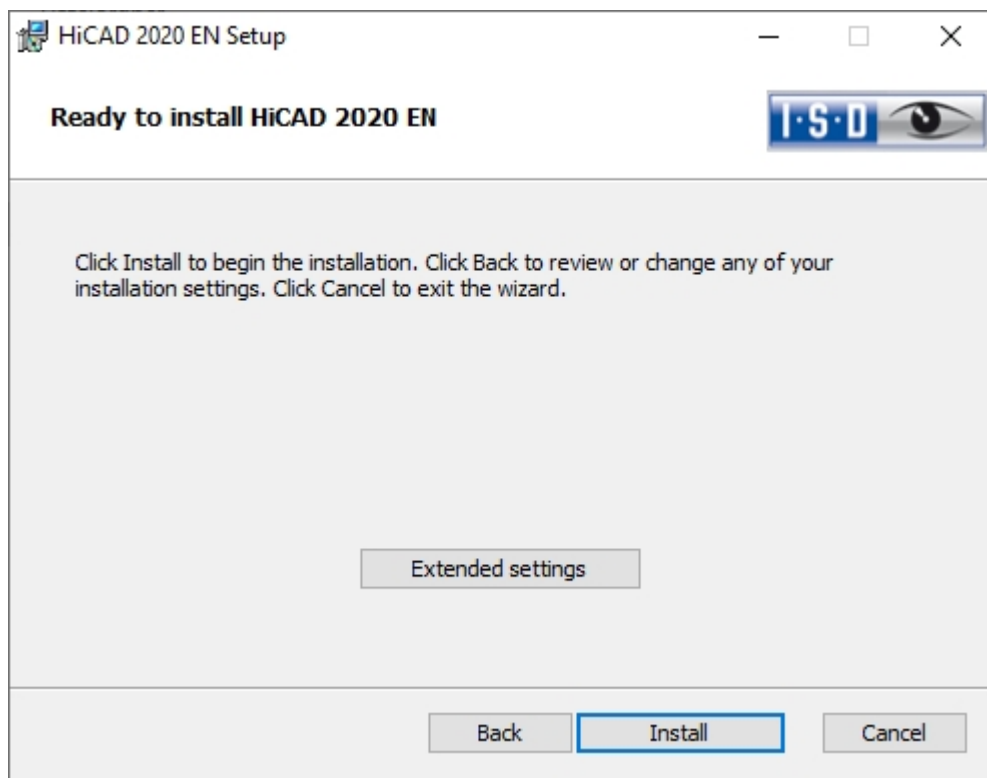
Click **OK** to complete the installation.

## Silent Installation

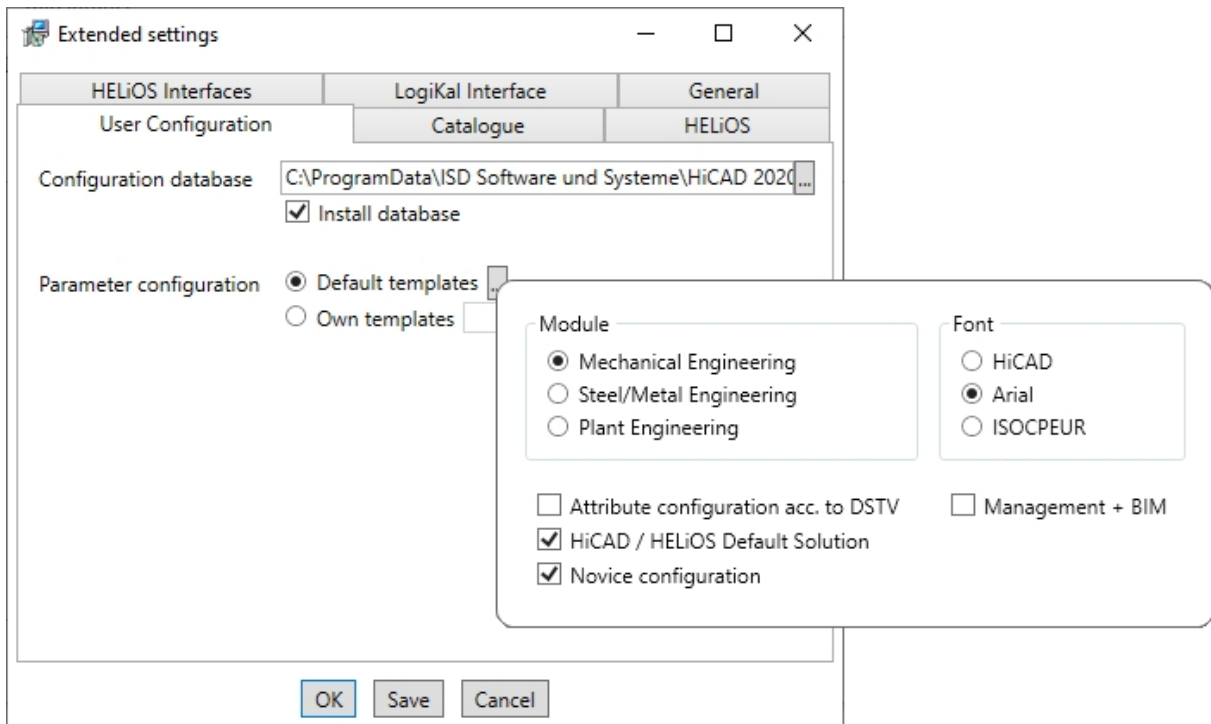
The silent installation can, for example, be configured for HiCAD, HELiOS or the HELiOS Spooler. The procedure is always the same.

To configure the installation options, start the installation **setup.exe** as usual and make the required settings.

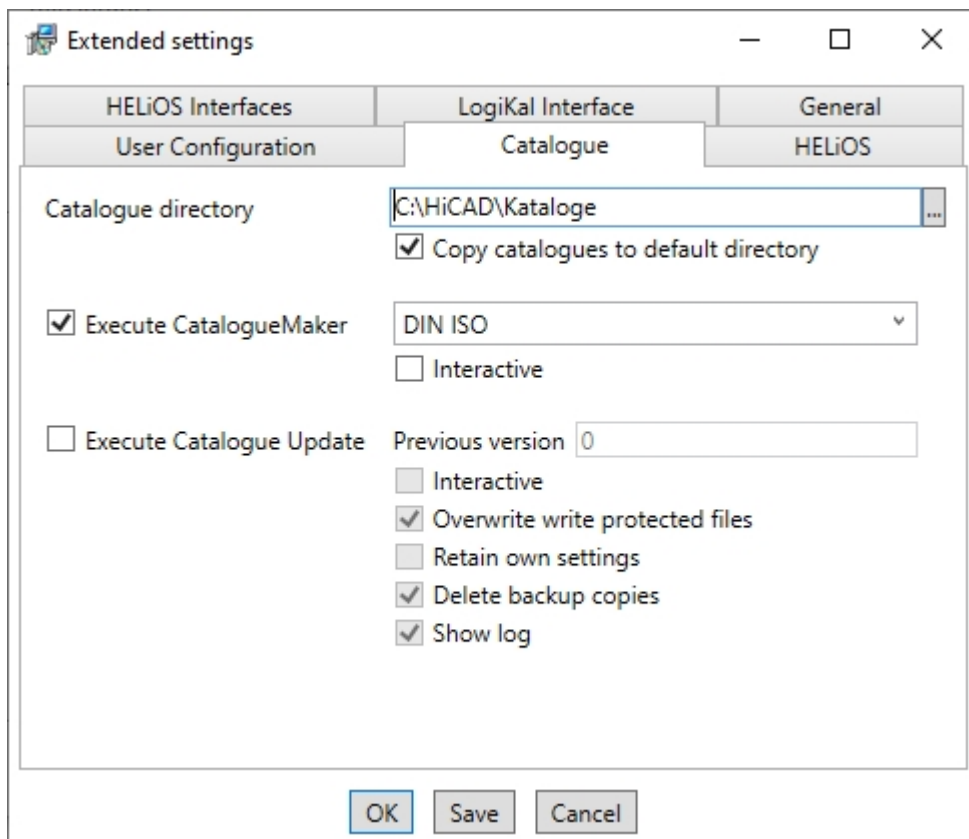
In the last dialogue of the installation, click on **Extended Settings**.



Here you can configure in particular the settings for the and the Catalogues in such a way that user interactions will no longer be required.



The parameter configuration takes place via selection of the .CSV file.



For **Execute CatalogueMaker**, the **Interactive** checkbox must be deactivated.

Clicking **Save** creates a setup.ini file containing the desired settings. This file will be loaded automatically if it is located in the same directory as the Windows Installer package **HiCAD.msi**. Alternatively you can specify a file via the command line:

```
setup.exe SETTINGS="<Ini-Datei>" /!*v "<Log-Datei>"
```

or

```
msiexec /i HiCAD.msi SETTINGS="<Ini-Datei>" /!*v "<Log-Datei>"
```

In this case the starting will not be “silent”, i.e. the installation dialogues will appear, but with the default values of the .ini file.

The option /!\*v "<Log-Datei>" creates a log file of the installation which can be used for the diagnosis of installation problems.

## Redistributables

Before distributing the installation you need to install the required redistributables on the target systems in order to circumvent the Microsoft-EULAs.

Examples:

```
vcredist.exe /passive
```

```
dotNetFx40_Full_x86_x64.exe /passive
```

The respective command line options of the individual Redistributable Installer can be called via the command line option /?.

If required, the .msu files of the Windows Installer 4.5 can be installed with the Windows Package Manager **pkgmgr.exe** (<http://support.microsoft.com/kb/934307/en>).

The packages can be installed with /passive /norestart. Otherwise, a reboot would be initiated automatically. If a package requires a reboot, the return value is 3010; otherwise it is 0 or an error code.



### Please note:

- You need to install the redistributables that are located on the DVD at Program32 or Program64 (except for the setup.exe and the language-specific folders such as de-de).
- The utilisation of the msi package or the setup.exe, respectively, differs insofar as the setup.exe will issue an interactive message if a requirement (redistributable) is missing, while the msi package will cancel the process with an error code. The latter might be more suitable for a deployment within the scope of a software distribution program.

## Starting the installation in the silent mode

The installation can only be set to the silent mode via the command line:

```
setup.exe SETTINGS="<Ini-Datei>" /passive /!*v "<Log-Datei>"
```

or

```
msiexec.exe /i HiCAD.msi /qb!- /SETTINGS="<Ini-Datei>" /!*v "<Log-Datei>"
```

As neither dialogues nor error messages are displayed, /!\*v "<Log-Datei>" creates a log file of the installation which can be used for the diagnosis of installation problems.

Information on further command line options can be obtained via the command line, by means of the command `msiexec /?`, and via the Internet at

[http://technet.microsoft.com/en-us/library/cc759262%28WS.10%29.aspx#BKMK\\_SetUI](http://technet.microsoft.com/en-us/library/cc759262%28WS.10%29.aspx#BKMK_SetUI)

<http://msdn.microsoft.com/en-us/library/windows/desktop/aa372024%28v=vs.85%29.aspx>

### Example: Batch installation incl. Redistributables and Log

```
@set SOURCE=\\entw042\Setups\HiCAD 2500
```

```
"%SOURCE%\vcredist_x86_10.0.40219\vcredist_x86.exe" /passive /norestart
```

```
@if errorlevel 1 echo Fehler bei Visual C++ Runtime Installation && goto error
```

```
"%SOURCE%\DotNetFX40\dotNetFx40_Full_x86_x64.exe" /passive /norestart
```

```
@if errorlevel 1 echo Fehler bei .NET Installation && goto error
```

```
msiexec.exe /qb!- /i "%SOURCE%\de-de\HiCAD.msi" /!*v "%SOURCE%\logs\%COMPUTERNAME%_HiCADIn-  
stallLog.txt" SETTINGS="%SOURCE%\Config\setup.ini"
```

```
@if errorlevel 1 echo Fehler bei HiCAD Installation && goto error
```

```
@exit
```

```
:error
```

```
@echo Installationsfehler %errorlevel%
```

```
@net helpmsg %errorlevel%
```

```
@pause
```



# Configuration

Company- or user-specific requirements can be conveniently adapted to the configuration.

- Configuration Management HiCAD
  - Configuration Management for Updates
  - Configuration Management for New Installations
- Parameter Configuration for HiCAD
- Configuration HELiOS (Central Distribution of Settings)

## Configuration Management

HiCAD offers a central configuration management with the Configuration Editor. This tool allows the creation of customer-specific configurations for a wide range of tasks, such as dimensioning, annotation, workshop drawing creation, fitting of vertical ladders etc. Once adjusted to company-specific requirements, these configurations can directly be used in HiCAD, without having to specify any further settings. The aim of our further developments is a gradual transfer of the previously used system files with their adjustable parameter settings into the Configuration Editor, thus enabling a central and safe configuration management.

This transfer has already been realised for the following files:

- ALGPAR.DAT (as of 1800.0)
- BEMPAR.DAT (as of 1800.0)
- DIMENSIONING\_SETTINGS.XML (as of 1800.0)
- KRPGEN.DAT (as of 1801.0)
- MASPAR.DAT (as of 1801.0)
- FITTABLE\_SETTINGS.XML (as of 1801.0)
- STBEMPAR.DAT (as of 1801.0)
- TXTANSI.DAT (as of 1801.0)
- STABMPAR.DAT (as of 1802.0)
- AUBM3PAR.DAT (as of 1802.0)
- ALG3DPAR.DAT (as of 1901.0)
- FEATURE.DAT (as of 1901.0)
- SCHRIF.DAT (as of 1901.0)
- TXTFONT.DAT (as of 1901.0)
- LINPAR.DAT (as of 1901.0)
- SSWRITESTEP.DAT (as of 1901.0)
- PASSTAB.DAT (as of 2000)
- ANSGEN.DAT (as of 2100)
- PARAMASS.DAT (as of 2101)
- SSTINI3D.DAT (as of 2102)
- SSTINI.DAT (as of 2102)
- STB\_PARAMETER.DAT (as of 2102)
- GRAPAR.DAT (as of 2201)
- KNTPAR.DAT (as of 2202)
- REF3D\_ATTR\_AKT.DAT (as of 2300)
- TXTPAR.DAT (as of 2300)
- TPAR.DAT (as of 2400)
- ABWPAR.DAT (as of 2402)
- ABWCOL.DAT (as of 2402)
- ABWPOL.DAT (as of 2500)

The settings from these files have been integrated into the Configuration Management. In the Online Help for the Configuration Management you will find the document `schluesselnamen.pdf`, which shows you where you can retrieve the entries from the DAT files in the Configuration Editor.

In addition, the Online Help provides a description of various scenarios for the utilisation of the tool. An extensive description of the Configuration Management (Performance – Functions – Scenarios) is provided in the document `ISD-Configuration.pdf`.

## Configuration Management for Updates

When performing an update from HiCAD 2019 or HiCAD 2018, your settings from the existing configuration file **HICAD.CFGDB** of your previous HiCAD version will be transferred to the Configuration Management of HiCAD 2020, namely into the Administrator profile.

When the update is performed, only the values predefined by the ISD, i.e. the “factory settings”, will be changed. All other (administrator or user) settings will be preserved.

If you use a central configuration database on a server, it will be automatically detected by the update program by means of the aforementioned Registry entry, and will be updated. For an update of several workstations, one single update will be sufficient; a multiple update will, however, not do any harm either (as an already updated setting will not be updated again).

When HiCAD is started, the configuration database will be checked.

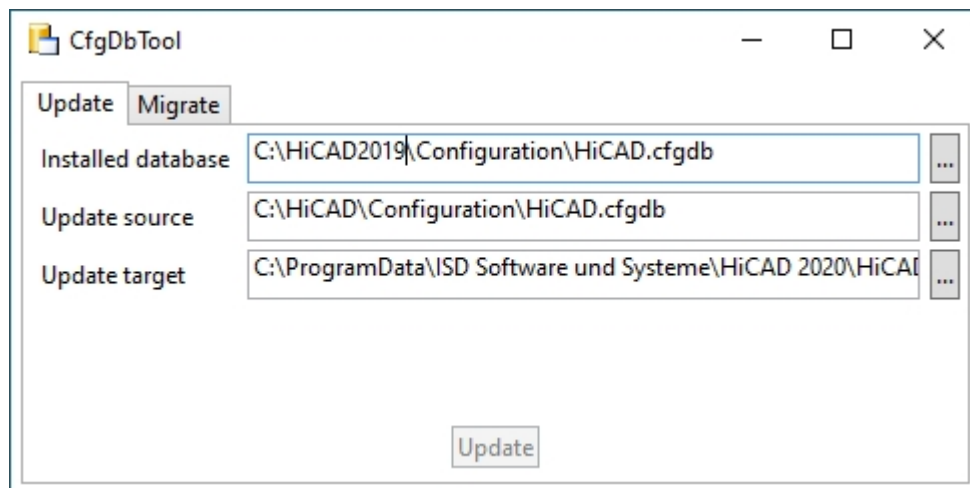
- If HiCAD is started with an outdated configuration base, a corresponding message will be displayed. In this case, please perform an update of the configuration database in order to avoid error messages or unexpected behaviour.
- If HiCAD is started with the database of a newer Major Release, a corresponding message will be displayed. In this case, please use a compatible database to avoid error messages or unexpected behaviour.

## Configuration Management for New Installations

If you perform a (new) installation of HiCAD 2020, the settings predefined by the ISD will be initially used in the Administrator profile of the Configuration Management. If you want to transfer your individual settings in the file **HICAD.CFGDB** from HiCAD 2019 or HiCAD 2018 to the Configuration Management of HiCAD 2020, use the program **CfgDbTool.exe** in the HiCAD EXE sub-directory for this.

Furthermore, you are enabled to transfer settings from old **DAT** and **XML** files which are now managed in the Configuration Editor, to the configuration database of the current version.

Start the **CfgDbTool.exe** from the HiCAD / exe sub-directory



Use the **Update** tab of the CfgDBTool you tab to transfer the settings of your previous configuration file (.CFDB) to the configuration file.

Installed database	The configuration database to be updated, i.e. (the configuration database of your previous HiCAD).
Update source	The configuration database of the new version; the configuration database with the current ISD settings can be found in the folder: [HiCAD installation directory]\Configuration.
Update target	The result of the update. If you enter the same file here as in the Installed database, a backup of the previous configuration database will be created. You cannot enter the same database here that you entered in the Update source field.

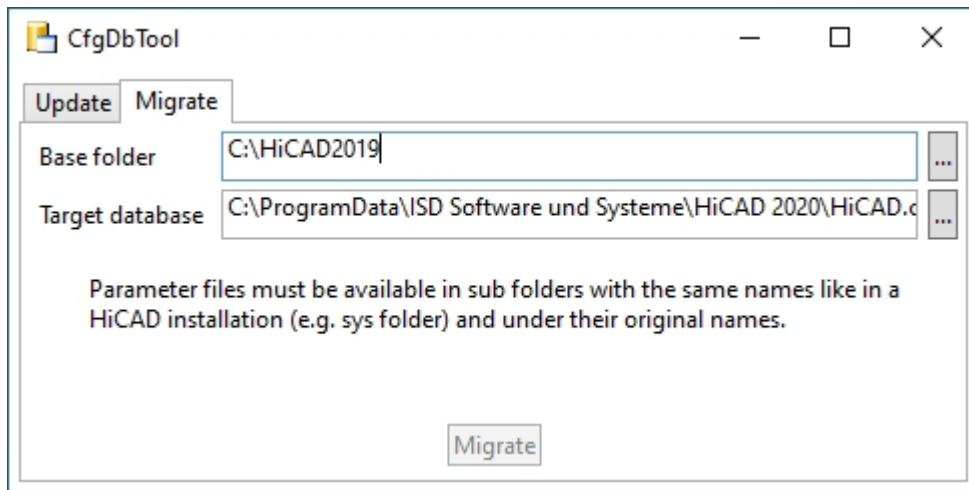
Select the directories.

Click the Update button to start the process.

Use the **Migrate** tab to transfer your individual settings from old **DAT** and **XML** files which are now managed in the Configuration Editor, to the configuration database of HiCAD 2019.

The setting files with their adjustments need to be copied to the HiCAD SYS subdirectory of the new HiCAD version for this purpose.

Start the **CfgDbTool.exe** from the HiCAD / exe sub-directory and activate the **Migrate** tab.



- HiCAD base folder      Here you enter the directory where your old DAT and XML files etc. are located. Please make sure that the old files have the same name and are located in the same directory structure as in a HiCAD standard installation.
- Target database      Here you specify the database to which the data are to be transferred.

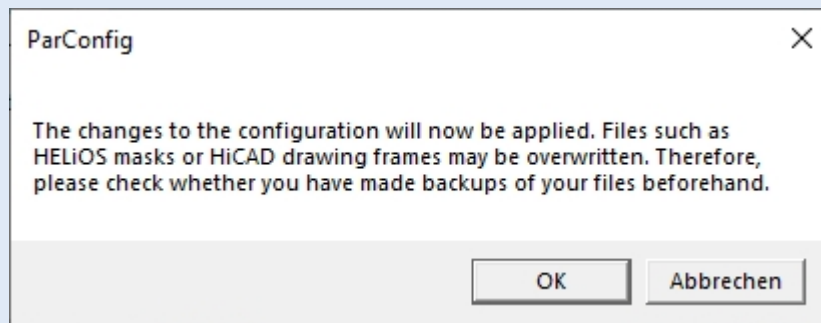
Select the directories.

Click the **Migrate** button to start the process.

## Parameter Configuration for HiCAD

### Important update notes - please read carefully!

When you run the **Computer Parameter Configurator** (HiCAD exe\ParKonfigComp.exe) tool – either during the installation/update (Extended Settings > User Configuration tab) or later – the following message will be displayed.



After confirming with **OK**, various system files in the HiCAD sys and szenen directory will be replaced with the files supplied in the HiCAD templates directory which have been designed especially for a working with the selected module and the activated checkboxes (e.g. ...DSTV or Management + BIM). These files include, for example

- HiCAD masks for the part attributes (\*.HDX),
- HELiOS masks for projects, documents and articles (\*.XML, \*.MSK),
- Various configuration files (\*.HDB) and
- Template files for annotations (\*.FTD).

You should therefore always make backups of all files that you have customized before using the ParKonfigComp.exe tool! If you have any questions, please contact your nearest ISD branch office.

**Cancel** aborts the operation without any changes to the configuration.

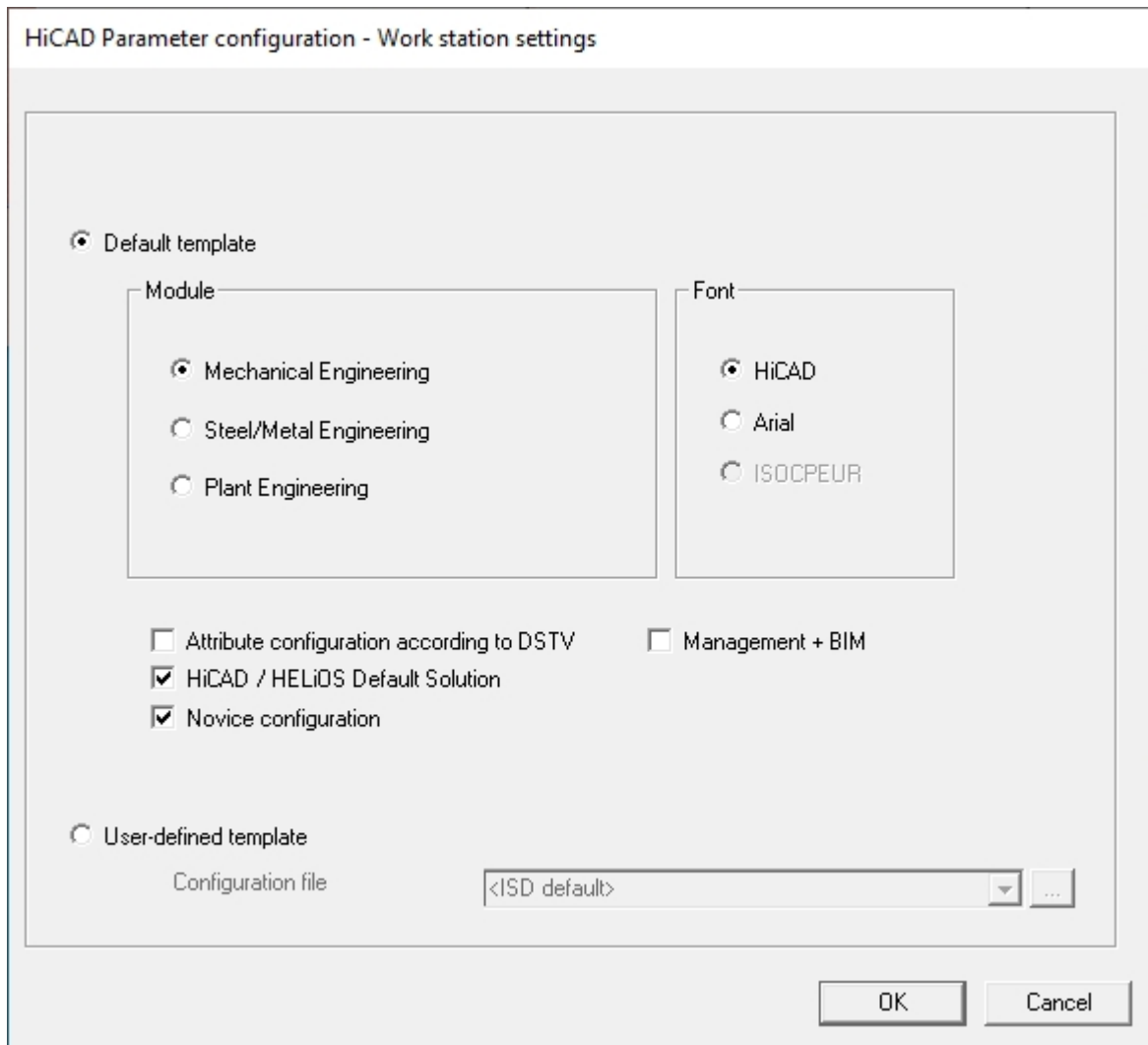
HiCAD provides suitably customised interfaces and configurations for various fields of engineering, e.g. for Mechanical Engineering, Steel Engineering, Metal Engineering or Plant Engineering. You can select these options during the installation of HiCAD.

To change the parameter configuration subsequently, start the programs

- ..exe/**ParKonfigComp.exe** for the workstation configuration, and
- ..exe/**ParKonfigUser.exe** for the user configuration.

Depending on the selection in the Parameter configuration, the settings stored in the **CSV file**, too, will be applied. In a CSV file it is, amongst other things, specified which files (e.g. HiCAD part masks or template masks for annotations) are to be copied to the sys directory.

When performing an Update, various system files in the HiCAD sys directory will be replaced with the files supplied in the HiCAD templates directory which have been designed especially for a working with the selected module and the activated checkboxes (e.g. ...DSTV or Management + BIM). The standard CSV files are located in the templates directory of the HiCAD installation. CSV files are configuration templates that you can create and edit with Microsoft Excel.



In the dialogue window you have the following setting options:

- **Module**  
Here you choose the required field of engineering. The common HiCAD parameters are then configured for this area.
- **Font**  
Specifies the text font default setting, e.g. for dimensioning, title blocks, view labelling, annotation etc.
- **Attribute configuration according to DSTV**  
If you want the HiCAD attribute masks for parts and drawings to obtain the DSTV-relevant attributes, please activate the appropriate checkbox. The files BRW\_3DTEIL.HDX and BRW\_SZENE.HDX in the HiCAD SYS directory will be preset for DSTV BOM configuration.
- **HiCAD/HELiOS Default Solution**  
Provides you with a preconfigured database solution for a safe and convenient management of product data. If you want to use it, activate the checkbox.
- **Novice Configuration**  
If you want HiCAD to be preset so that the automatic procedures of the novice configuration apply, activate this checkbox.
- **Management + BIM**  
Provides the BIM-PDM configuration with typical civil engineering attributes, masks and title blocks.



- User-defined template  
Activate this option if you want to use your own configurations. Then select the relevant configuration file.

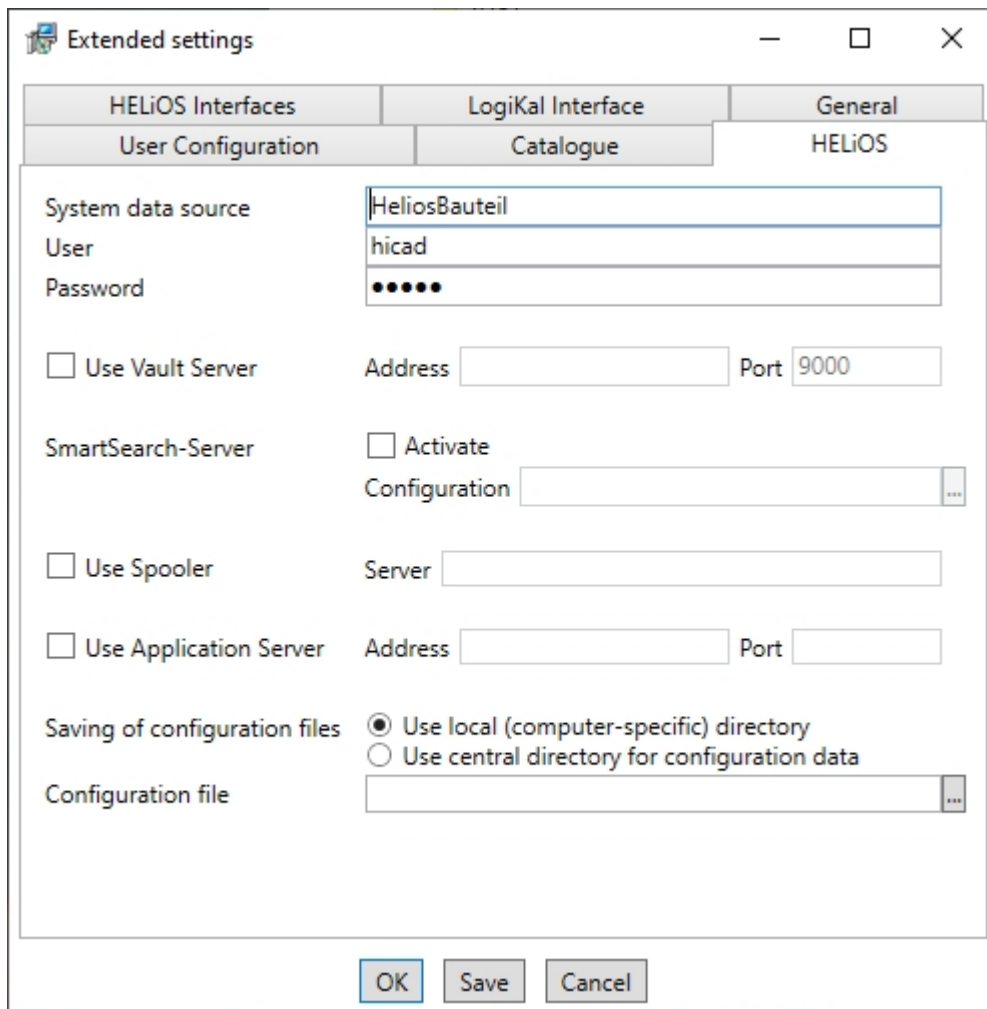
**Please note:**

When performing an update, only activate the copying of default templates if no user-specific, customized masks and Bills of Materials are used.

## Configuration HELiOS (Centrale Distribution of Settings)

During installation of HELiOS you may either import the HELiOS settings (e.g. user interface, masks and attribute assignments) as a ZIP package as usual or provide them locally (in a network folder). HELiOS then checks for newer settings when the application is started and updates the local settings accordingly.

The optional request for UI configuration during a New, Update or Change Installation has been extended in HELiOS 2020. It is now possible to distinguish between a local and a central (cross-computer) directory. This means that you can save the HELiOS configuration for several workstations in a central directory instead of having to "distribute" it to the individual local directories. To do this, create a ZIP file in HELiOS under **View > Settings > Export**.



If you select the option **Use central directory for configuration data** in the new or update installation, a **directory** (e.g. network drive) must be selected via Windows Explorer  instead of the local **Configuration file** in .ZIP format.

## Change Installation

A **Change Installation** from HiCAD-/HELiOS offers the option to change a central configuration subsequently. However, a subsequent selection of a local Configuration file is not required here. If you would like to change the configuration file subsequently, use the **HELiOSConfigImport.exe** tool.



### Please note:

- Settings files that are provided by the administrator in a central directory must be selectively copied to that directory. The directory structure provided by HELiOS must be observed due to the dependency on files. This must correspond to the directory structure defined in **%APPDATA%\ISD Software und Systeme\HELiOS 2020**. If in doubt, contact the ISD consulting team if you have any further questions.
- If the set configuration directory is not accessible at runtime, HELiOS behaves as if it is empty. This means that the program starts without updating the interface configuration.
- During the update installation of HELiOS for an older HiCAD version (before 2020), the option for setting the configuration directory is missing and can only be adjusted via the registry. If you have any questions, please contact the ISD consulting team.
- When updating an older HELiOS to HELiOS 2020 or higher, old mask files (in the \sys\ directory of the installation) are converted to the new XML format during the process and saved under %Program Data%. This conversion is not dependent on whether the local or central directory was selected for the interface configuration. The old configuration file can then be found in a backup directory created by the operation below the installation folder.

- The new masks at **%Programdata%** should not be overwritten in any case, because these are the "delivery status", which may be updated by later update installations. If masks are edited and changed with the mask editor, they are stored at **%Appdata%** and are called up by HELIOS when working in corresponding masks from this directory. This means: If masks are to be distributed uniformly to different workstations, they must be saved under **%Appdata%** and not (!) under **%Programdata%**

# Update

- Licensing in Case of Updates
  - Updating the Server License
  - Updating Local Licenses
- Carrying Out the Installation
- Data Compatibility of HiCAD/HELiOS
- Update of HiCAD
  - Backups Before Performing the HiCAD Update-Installation
  - Update Installation of HiCAD
- ISD Update Service
  - Installing the ISD Update Service
  - Using the ISD Update Service
  - ISD Update Service: Settings
- Updating the HELiOS Database (Database Schema)
- Mask Converter for HELiOS
- Manual Registration of Multi-CAD Add-ins
- New File Format for 2-D Files in HiCAD
  - Installing the FIG-FGA Converter
  - Conversion of 2-D Files into FGA Format
- CatalogueMaker

## Important notes on updates!

### Hardware Exchange

If you use local HiCAD/HELiOS licenses and want to exchange any hardware components, modify the partitioning of, or re-install the operating system, you need to revoke the existing license on the HiCAD/HELiOS workstation first, and request, using the new hardware or modified configuration, a new license key (further information on the procedure can be found in the software documentation).

If a revocation is technically possible, but will not be performed, the ISD reserves the right to charge costs in an appropriate amount for the reissuing of the license. If the license will not be revoked, or if such revocation is no longer technically possible, the ISD may request proof that the unrevoked license is no longer utilisable; in case of failure to produce such proof, the ISD reserves the right to refuse the transfer of the license to a new hardware.

### Licenses

Before updating HiCAD/HELiOS 2019 or 2018 to HiCAD/HELiOS 2020 you must deactivate all licenses (Server Licenses or Local Licenses). The procedures for Server Licenses and Local Licenses are different.

### Data compatibility

HiCAD 2020 uses a different data format, which means that .SZA files saved with HiCAD 2020 can no longer be loaded into older HiCAD versions.

When performing a HELiOS update, the update start mask shows you the HELiOS subversion, which needs to match the existing database. If this is not the case, only an error message will appear when you start HELiOS. To update the database schema, use the program HeliosDbUpdate.exe. If the database schema requires an update, you can **no longer access** the database with older HELiOS versions. Therefore, all workstations accessing the database need to be readjusted accordingly at the same time.

### Administrator

Before carrying out an update you should inform the responsible Administrator to ensure a well coordinated switch to the higher version.

### Backup HiCAD/HELiOS

Backups of the following files must be made, for cases in which an unexpected interruption of the update occurs: Catalogues, HiCAD.cfgdb (Configuration Database) and HELiOS Database (only required if you actually use a HELiOS Database).

### HELiOS Data base schema

As existing datasets with non-compliant conditions may cause conflicts during the central update process of the HELiOS delivery database, you should consider the following:

1. **Do a database backup:** You should make sure that a backup of your HELiOS database has been created before the update. This can be done with the HELiOS Database Creator or via your SQL server application. Please contact the ISD hotline if you have any questions or need support for your individual system architecture.
2. **The log file of the update:** If any conflicts occur during the update, they are traced in the log file **HeliosDbUpdate.txt** (in the system path %appdata%\ISD Software and Systems\HeliosDbUpdate\). Have this file ready if you contact the ISD hotline for troubleshooting and successful updates.

### New Mask Editor in HELiOS 2020

Due to the complete revision of the Mask Editor in HELiOS 2020, the previous mask format has been changed from .MSK to .XML. In addition, mask files are now managed outside the installation directory, resulting in some changes in the system architecture that Administrators must consider:

- The masks of older versions (before V 2500.0) that were previously stored in the SYS directory of the installation are automatically converted to the new XML format in case of an update installation and stored at **%Programdata%**.
- The new masks at **%Programdata%** should not be overwritten under any circumstances, as these represent the "delivery status", which will be updated by later update installations. If masks are edited and changed with the Mask Editor, you must store and call them at **%Appdata%**.

### Updating the HELiOS-Inventor interface

For an update of the Inventor interface from an older HELiOS version to HELiOS 2020 (Version 2500) or higher (and the corresponding update of the database schema) the following changes have to be considered:

1. The structure identifiers for Inventor parts must be updated.
2. The standard part and semi-finished product identifiers are changed to a document-based (instead of article-based) management.

An update installation can only be carried out after an appropriate preparation of the migration.

In case of an update, please contact the Consulting team of the ISD Group. New installations of HELiOS 2020 and the associated database are not affected.

### Updating the HELiOS-SOLIDWORKS interface

For an update of the SOLIDWORKS interface from an older HELiOS version to HELiOS 2020 (Version 2500) or higher (and the corresponding update of the database schema) the following changes have to be considered:

Since a migration of the configuration IDs is performed during the update, an update installation can only be performed after the migration has been prepared accordingly. In the event of an update, contact the Consulting team of the ISD Group. New installations of HELiOS 2020 and the associated database are not affected.

### Important update notes for attribute mapping in title blocks

Until HELiOS 2019, attribute mapping at SOLIDWORKS was done by the following files:

- heliossw\_titleblock.dat (attributes for the title block),
- helios\_cs\_global\_config.dat (attribute mapping/presetting in both directions),
- sw\_comp\_name.dat (display in the model tree in CAD).

As of HELiOS 2020 (Version 2500.0), the mapping must be set up again manually. No migration tools exist.

Up to HELiOS 2019, the attribute for the title block in AutoCAD was created using the following files:

- heliosac\_titleblock.dat,
- helacblock.xml

As of HELiOS 2020 (version 2500.0), the mapping must also be set up manually here.

In case of an update, please contact the Consulting team of the ISD Group.

**Important notes for administrators during a HELiOS update installation working with the HELiOS integration for Inventor, AutoCAD and SOLIDWORKS!**

When updating the database to HELiOS 2019 Service Pack 2 or higher, the old workspace is checked for documents in progress. These are documents with the pen symbol in the respective (old) workspace dialog, or entries of locked documents in the Workspace Manager from HELiOS Desktop (on the right hand side).

Should the check find relevant documents, the following message appears:

The update of the database cannot be performed because there are still locked documents in old local work areas which will not be supported in the future. After this update, only work areas with new administration are supported and automatic migration is not possible. More information can be found [here](#).

**Plant Engineering and Pipeline planning**

If you have used the HiCAD modules Plant Engineering or Pipeline Planning with a HiCAD version older than Version 2016, it is mandatory that you read the information on update procedures given in the Online Help and also in the PDF document "Plant Engineering/Pipeline Planning – Notes on Updates".

**Material Manager**

The Material Manager (materialmanager.exe) that enables a taking over of materials from Catalogue Editor to HELiOS needs to have the same database schema as HELiOS. Therefore the Material Manager will also be updated.



## Licensing in Case of Updates

Before updating HiCAD/HELiOS 2019 or 2018 to HiCAD/HELiOS 2020 you need to deactivate all licenses (Server licenses or local licenses). The procedures for Server Licenses and Local Licenses are different.

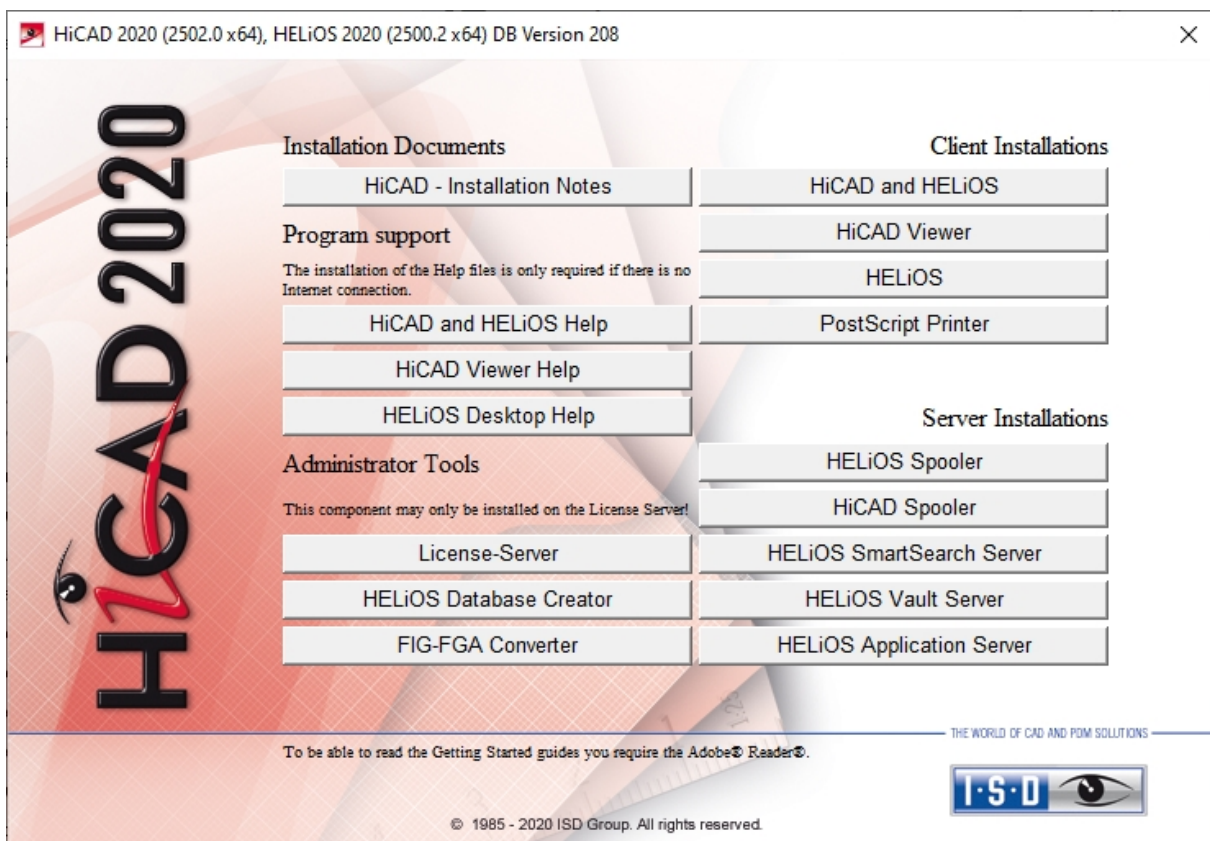
### Updating the Server License

For a Server license the License Server software and the License Management tools may require an update. Furthermore, you need to deactivate the licenses for Versions 2019 or 2018 first, and then activate those for Version 2020.

You can start with the installation of HiCAD/HELiOS before or after activation of the new licenses; a starting of the software is, however, only possible after activation of the new licenses.

The current Version of the License Server, Sentinel RMS License Manager 8.6.2, can be found on the installation medium of HiCAD/HELiOS 2020. If you have an older version, you need to uninstall this version with the help of the Windows Control Panel. First, uninstall the **Sentinel RMS License Manager** there and (if there are any) the AdminToolsServer.

You can then install the new version of the License Server from the installation medium. Start the installation wizard and click on the **Standard Edition** button. In the selection mask of the installation wizard, click on the **License Server** button.



Before you can use the new licenses of HiCAD/HELiOS 2020 you need to deactivate the old licenses for Version 2019 or 2018 with the help of the License Manager. This tool is located in the Windows **Start** menu at **All programs > ISD Software und Systeme > Administration**.

After starting the **ISD License Manager** the **License Activator** tab will be active. Normally, the **EID** (Entitlement ID) field is still filled in and the fields **E-mail** and **Password** are still empty. The activated modules of Version 2019/2018 are highlighted (blue). Click on the **Deactivate** button to revoke the activation of these modules.

To activate the new licenses you require the **ISD License Manager**. After installing HiCAD/HELiOS 2020 this tool will be available to you in the **Start** menu of Windows at **ISD Software und Systeme > Administration**.

Another prerequisite for the activation of the new licenses is their requesting via the new Update form (isd-group.com > Support & Schulung > ISD Wiki > Download) and the subsequent provision of the licenses by the ISD. .

Start the **ISD License Manager**, which you can find in the **Start** menu of Windows at **ISD Software und Systeme > Administration**(C:\Program Files (x86)\ISD Software und Systeme\AdminToolsServer\exe).

On the **License Activator** tab, enter the **Entitlement ID**, your **E-mail address** and your **Password** and click **Login**. After connecting to the **ISD License Server**, all your purchased licenses will be shown. Use the checkboxes to select the modules that you wish to activate and confirm your selection with a click on the **Activate** button.

After successful activation you can start HiCAD/HELiOS.

## Updating Local Licenses

Before installing HiCAD/HELiOS 2020 you need to deactivate the local licenses for HiCAD 2019 or 2018 on your workstation. After installing HiCAD/HELiOS 2020 you need to activate the new licenses.

To deactivate the old licenses you use the **ISD License Manager** which is located in the Windows start menu at **ISD Software und Systeme > Administration** (C:\Program Files (x86)\ISD Software und Systeme\AdminToolsServer\exe).

On the **License Activator** tab, click on the **Deactivate** button to revoke the activation of the modules, i.e. to deactivate them. After successful deactivation, a corresponding message will be displayed.

To activate the new licenses you require the **ISD License Manager 4.0**. After installing HiCAD/HELiOS 2020 this tool will be available to you in the **Start** menu of Windows at **ISD Software und Systeme > Administration**.

Another prerequisite for the activation of the new licenses is their requesting via the new Update form (isd-group.com > Support & Schulung > ISD Wiki > Download) and the subsequent provision of the licenses by the ISD. After installing HiCAD/HELiOS, start the **ISD License Manager**, which you can find in the **Start** menu of Windows at **ISD Software und Systeme > Administration** (C:\Program Files (x86)\ISD Software und Systeme\AdminToolsServer\exe).

On the **License Activator** tab, enter the **Entitlement ID**, your **E-mail address** (the address to which the E-mails of the Activation@isdgroup.de were sent) and your **Password** and click **Login**.

After connecting to the **ISD License Server**, all your purchased licenses will be shown. Use the checkboxes to select the modules that you wish to activate and confirm your selection with a click on the **Activate** button. The selected modules will then be activated on your workstation. You can deactivate them again at any time to enable their use on a different workstation.

After successful activation you can start HiCAD/HELiOS.

## Carrying Out the Installation

The installation of HiCAD/HELiOS can be carried out by a technician of the ISD or by the customer.

In this context, please note the following recommendations by the ISD:

- HiCAD without HELiOS
  - Update of version 2019 or 2018 to version 2020: Can be carried out by experienced users with sufficient background knowledge.
  - Update of version 2017 (or older) to version 2020: An update is not possible. The update installation from version 2008 (or older) additionally included a data conversion from ANSI to UNICODE format. Please contact our Consulting team.
- HiCAD with HELiOS
  - Update of version 2019 or 2018 to version 2020: An installation by the ISD is recommended.
  - Update of version 2017 (or older) to version 2020: An update is not possible. The update installation from version 2008 (or older) additionally included a data conversion from ANSI to UNICODE format. Please contact our Consulting team.
- 3rd party CAD with HELiOS
  - Update of version 2019 or 2018 to 2020: An installation by the ISD is recommended.

## Data Compatibility of HiCAD/HELiOS

No changes are made to the HiCAD data format and the HELiOS standard database within major releases. This means that all patches and service packs of a version (e.g. 2500.x, 250X.x) will be using the same data format, and no HELiOS update will be required.

When updating from older HiCAD versions to HiCAD 2020 (Version 250X), please note the information given below. Updates to version 2020 are only possible from version 2019 (Version 240X) or 2018 (Version 230X).

Update from Version	HELiOS Update	HiCAD data format changed
HiCAD 2019 Version 240X	✓	✓
HiCAD 2018 Version 230X	✓	✓



### Please note:

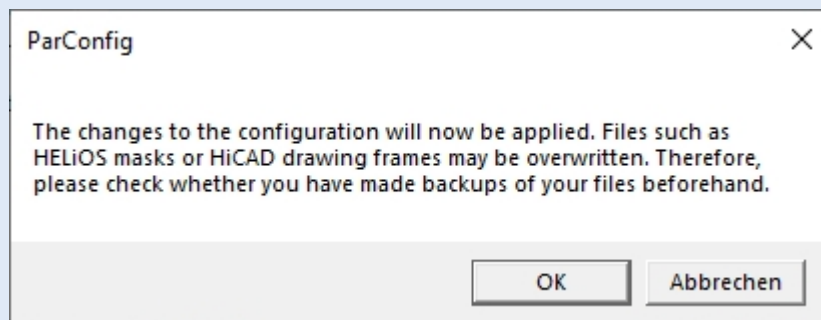
- If a HELiOS update is necessary, older HiCAD, respectively HELiOS versions have no access to the database any more. All workplaces need to be converted at the same time.
- If the HiCAD data format has been changed, drawings and parts cannot be loaded with the older version if they were saved with the new version.

## Update of HiCAD

The ISD recommends performing an Update Installation when switching from HiCAD 2019 or 2018 to HiCAD 2020 or for the installing of Service Packs and Patches.

### Important update notes - please read carefully!

When you run the **Computer Parameter Configurator** (HiCAD exe\ParKonfigComp.exe) tool – either during the installation/update (Extended Settings > User Configuration tab) or later – the following message will be displayed.



After confirming with **OK**, various system files in the HiCAD sys and szenen directory will be replaced with the files supplied in the HiCAD templates directory which have been designed especially for a working with the selected module and the activated checkboxes (e.g. ...DSTV or Management + BIM). These files include, for example

- HiCAD masks for the part attributes (\*.HDX),
- HELiOS masks for projects, documents and articles (\*.XML, \*.MSK),
- Various configuration files (\*.HDB) and
- Template files for annotations (\*.FTD).

You should therefore always make backups of all files that you have customized before using the ParKonfigComp.exe tool! If you have any questions, please contact your nearest ISD branch office.

**Cancel** aborts the operation without any changes to the configuration.

## Backups Before Performing the HiCAD Update Installation

Bevor Sie die Update-Installation von HiCAD starten, sollten Sie ein Backup folgender Dateien erstellen:

- Catalogues
- HiCAD.cfgdb (Configuration Database)
- HELiOS Database (only required when you actually work with a HELiOS Database)

These components will be automatically updated during the installation. Nevertheless is a backup of these components recommended, e.g. for cases in which an unexpected interruption of the update occurs.

Please create an archive folder for the storage of these backups.

## Backup of catalogues

Find the folder where the catalogues of the old version are located.

- In case of a local installation this is usually the KATALOGE folder in the directory of your HiCAD installation.
- In case of a network installation the catalogues are normally located in a shared network folder, which is indicated in the Windows Registry at HKEY\_LOCAL\_MACHINE\SOFTWARE\ISD Software und Systeme\HiCAD\240X.X (or 230X.X) in the CatDir key.

In the Windows Explorer, right-click the folder that contains the catalogues. Select **Send to > Compressed (zipped) folder**. Important: Please choose a descriptive name for the zipped folder enabling an easy recognition of the catalogues, e.g. HiCAD\_2019\_CATALOGUES.ZIP

After its creation, move the file to the archive folder.

## Backup of Configuration Database HiCAD.cfgdb

Before installing the new HiCAD version, copy the old file HiCAD.cfgdb to the archive folder.

In the Windows Registry at HKEY\_LOCAL\_MACHINE\ SOFTWARE\ISD Software und Systeme\HiCAD\240X.X (or 230X.X) in the CfgdbPath key you can see where the file HiCAD.cfgdb is located.

## Backup of HELiOS Database

Open the **SQL Server Management Studio**. Select **Start > All Programs > Microsoft SQL Server 240X (or 230X.X) > SQL Server Management Studio**. Click **Connect**.

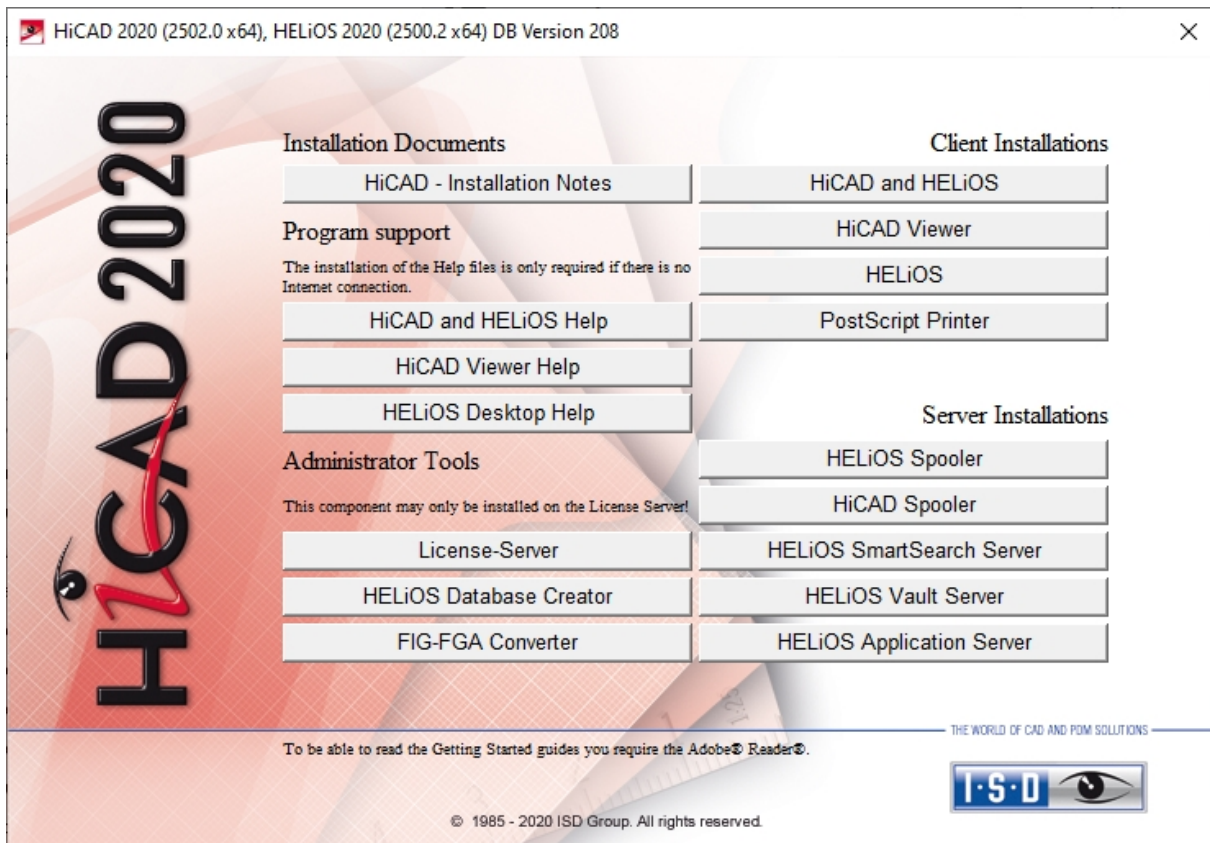
On the left side, right-click **bauteil...** in the list. Then, select **Tasks > Back Up**. Make sure that the backup will be stored in the archive folder. You can then compress the backup file (.bak) to a ZIP file.

## Update Installation of HiCAD

You can conveniently download the current HiCAD version in the Download Area in the ISD Wiki. On the corresponding installation medium you will find, besides the HiCAD installation, further utilities and the HELiOS installation. Please note that the HELiOS installation is the last available HELiOS patch containing the same database subversion as the HELiOS version that was originally released with the corresponding Major Release. The advantage of this is that you will not need to update the database as well thanks to the simultaneous installation of HELiOS.

Start Windows to begin with the Update Installation. If Windows has already been opened, close all other applications and start the installation wizard.

In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

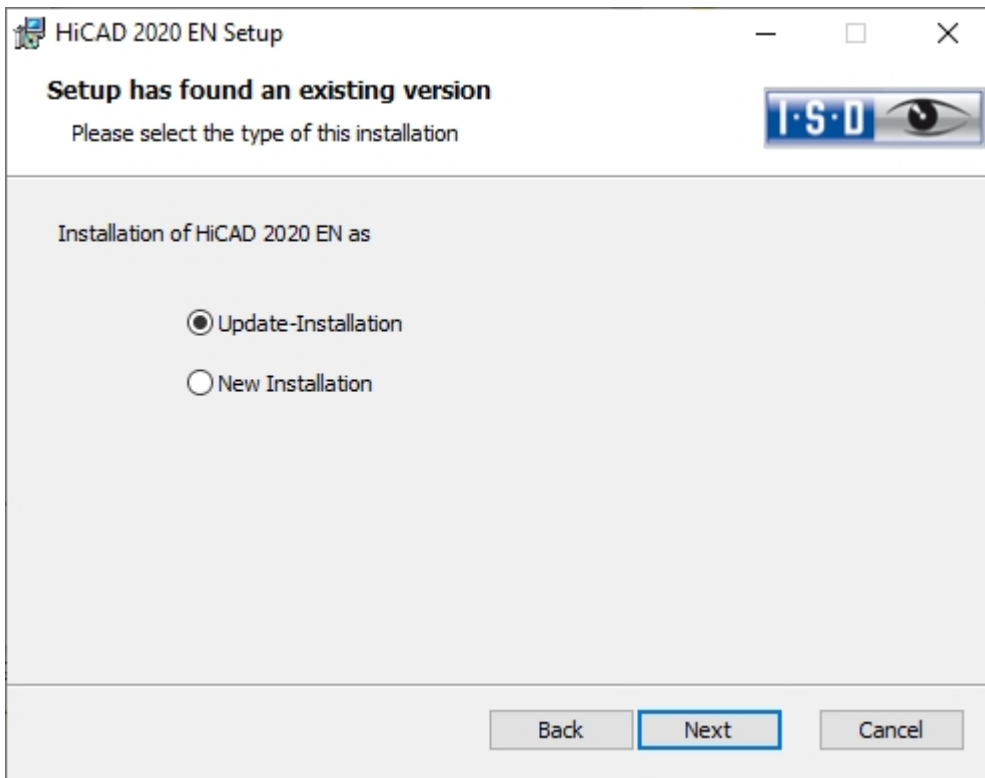


Click on the HiCAD and HELiOS button.

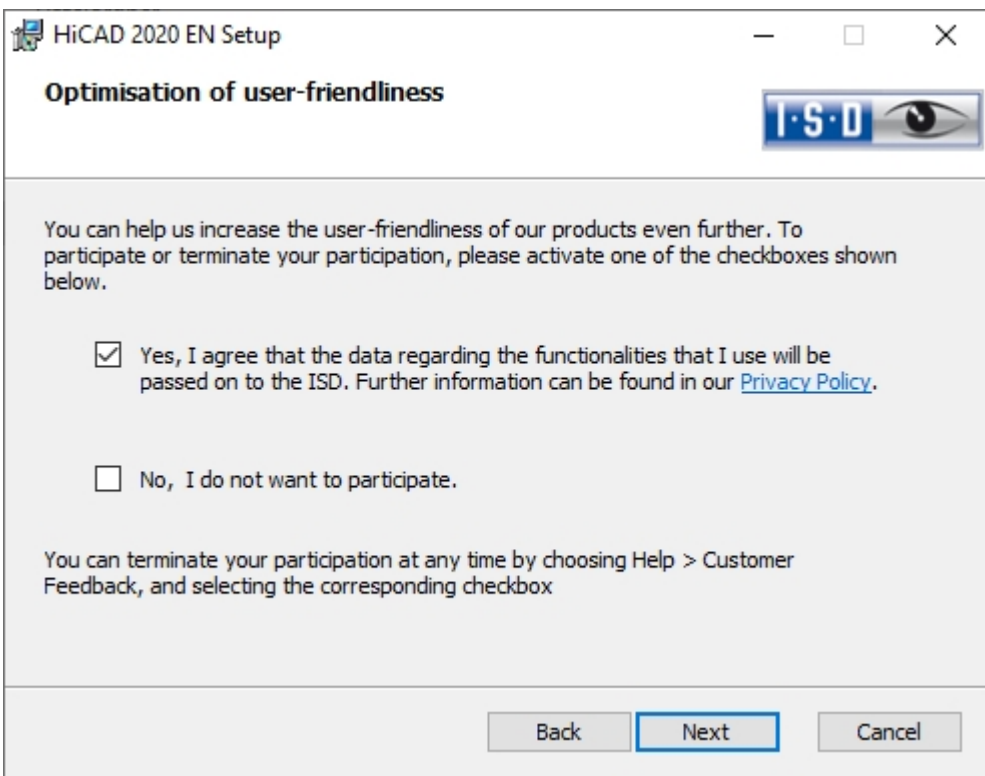


Please read this information carefully.

If the installation program finds an already installed HiCAD Version, this will be indicated in a corresponding dialogue window.



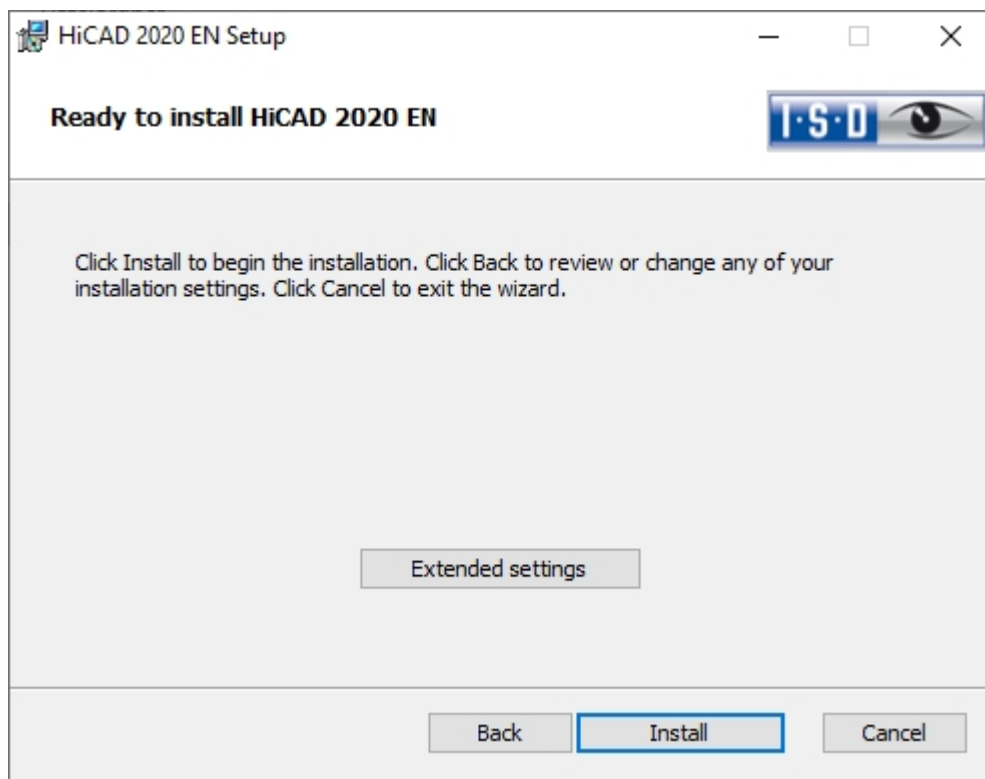
Activate the **Update Installation** option and click **Next**.



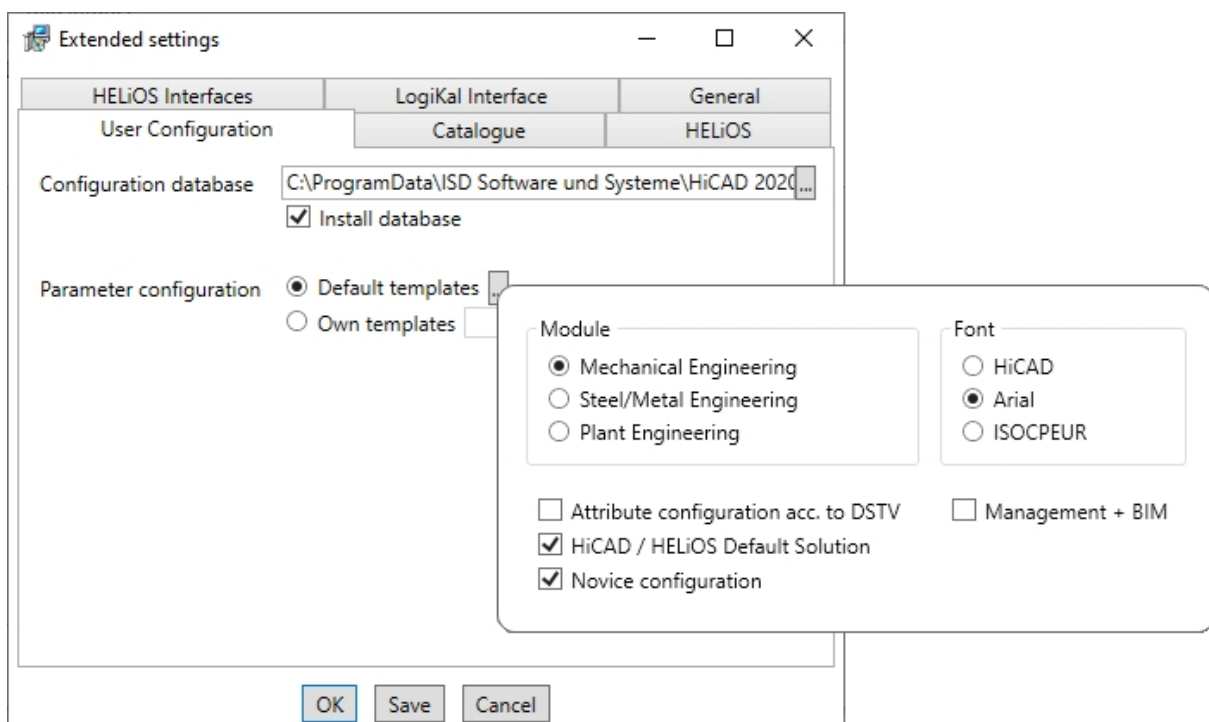
You can help us increase the user-friendliness of our products even further. To participate or terminate your participation, please activate the corresponding checkbox.

You can terminate your participation at any time by choosing **Help > Customer Feedback**, and selecting the corresponding checkbox.





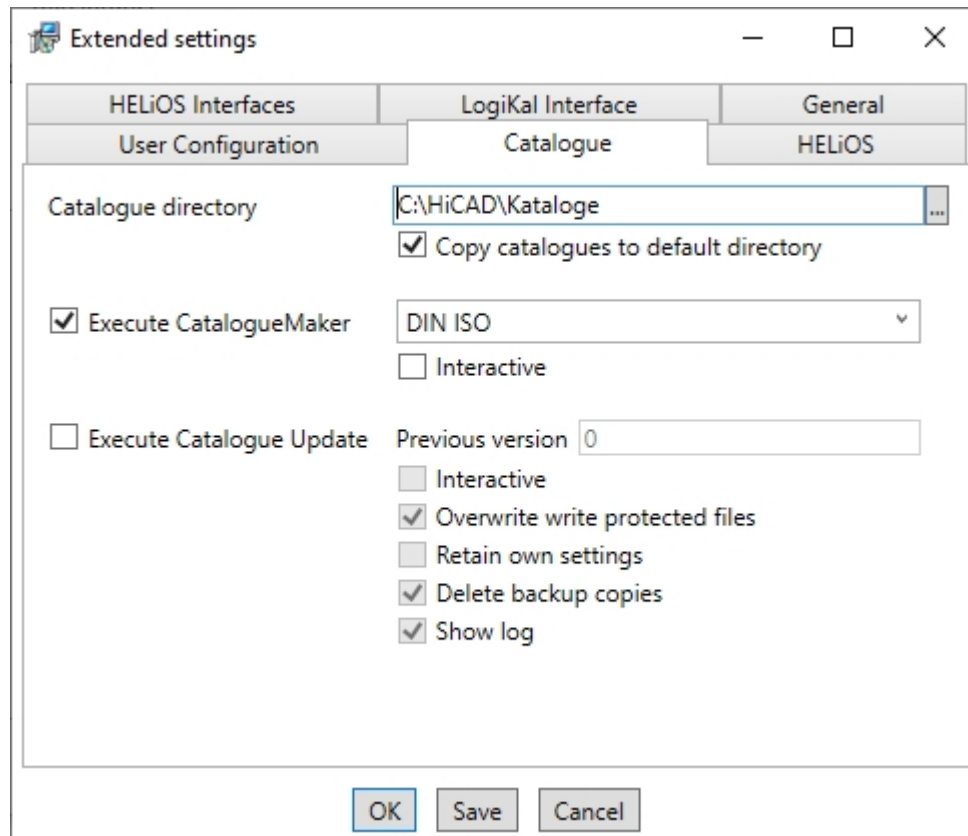
You can now start with the installation or modify the **Extended Settings**, e.g. for the user configuration, the catalogues, or HiCAD with HELiOS



At **Configuration Database**, customer-specific settings for various features such as dimensioning, annotations, workshop drawing creation or fitting of vertical ladders are stored. When making an update, **customer-specific settings** can be applied. In addition, values that have not been modified by the user will automatically obtain the updated pre-settings.

At **Parameter configuration**, you can modify the previously set **Standard templates** if desired. If you choose **Own templates**, you can select a CSV file. In a CSV file it is, amongst other things, specified which files (e.g. HiCAD part masks or template masks for annotations) are to be copied to the sys directory. When performing an Update, various system files in the HiCAD sys directory will be replaced with the files supplied in the HiCAD templates directory which have been designed especially for a working with the selected module and the activated checkboxes (e.g. ...DSTV or Management + BIM). The standard CSV files are located in the templates directory of the HiCAD installation. CSV files are configuration templates that you can create and edit with Microsoft Excel (please see Online Help).

**Parameter configuration: No templates** is activated by default. You can also change this setting subsequently, via the programs `..exe/ParKonfigComp.exe` (for the workstation) and `..exe/ParKonfigUser.exe` (for the User).




The execution of the **CatalogueMaker** serves the purpose of specifying which standard series are to appear in the standard part catalogues (currently standard series are available for DIN, ISO, EN, ANSI and JIS); the selection of standards in the **CatalogueMaker** only influences the display of standard parts, but not their availability; the availability is still controlled via license selection in the **ISD License Manager**.

In case of updates, the existing configuration will be applied, and the **CatalogueMaker** will not be started automatically. If you want to add standards to the catalogues, the program can be called via **Start > All Programs > ISD Software und Systeme GmbH > Administration**.

The screenshot shows the 'Extended settings' dialog box for HELiOS. The 'General' tab is selected, and the 'HELiOS' section is visible. The 'System data source' field contains 'HeliosBauteil', 'User' is 'hacad', and 'Password' is masked with dots. There are checkboxes for 'Use Vault Server', 'SmartSearch-Server', 'Use Spooler', and 'Use Application Server'. The 'Use local (computer-specific) directory' radio button is selected under 'Saving of configuration files'. A 'Configuration file' field is at the bottom. Buttons for 'OK', 'Save', and 'Cancel' are at the bottom.

In case of a new installation of HELiOS you can specify an arbitrary name for the system data source. In case of an update, the existing data source will be offered. User and Password will be identical with the ODBC login.

If you use a Vault Server, activate the **Vault Server** checkbox. Enter the name of the Server in the **Address** input field, and the Server Port of the Vault Server in the **Port** input field. You already entered both during the installation of the Vault Server.

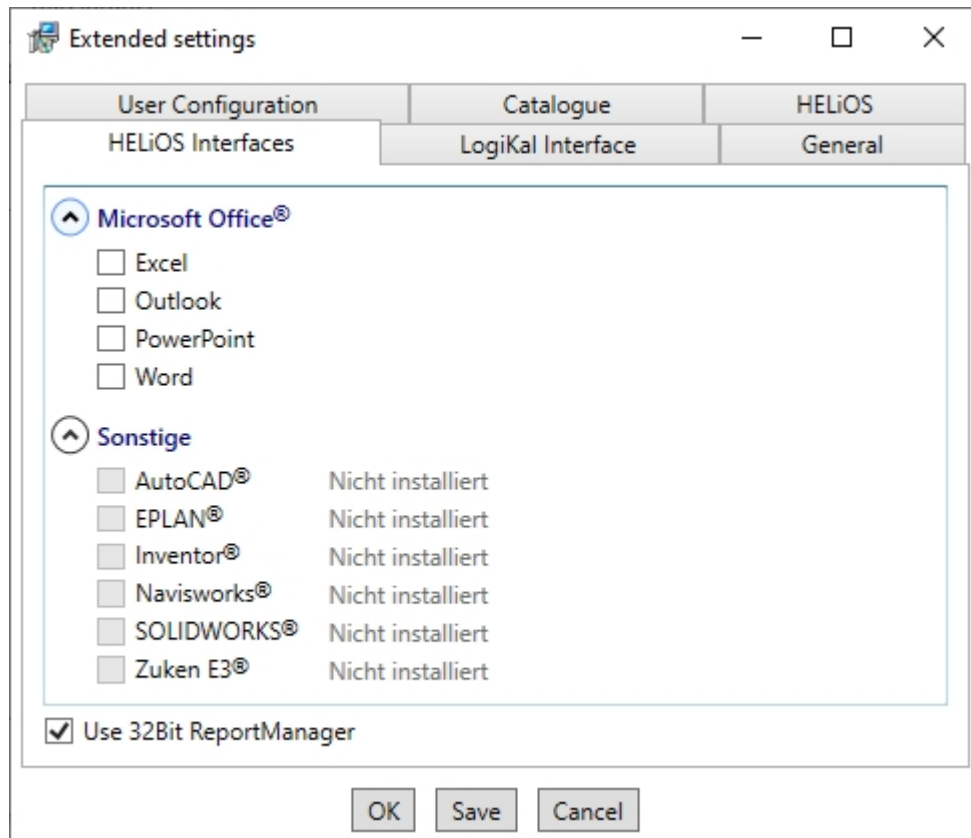
If you have not installed the Vault Server yet, you can do this now: Choose HELiOS Options > Database > General > Vault Server  and specify the connection. For activation you must then restart the HELiOS Desktop.

During an update installation it will be checked whether the existing HELiOS version is newer than the one on the DVD. If this is the case, the HiCAD installation will only update the non-HELiOS files. The HELiOS files are those that would be supplied by a standalone installation of the HELiOS Desktop, minus the hacadcommons contained therein.

If you want to process your print jobs via the ISD **Plot Management**, you need to install one **PrintClient** on each workstation. Activate **Use Spooler**. In the Server field, enter the network name of the computer on which the Spooler is installed. The Spooler collects the print jobs and processes them, taking your settings into account.

Individual settings of HELiOS can be distributed to other users or workstations. To do this, create a ZIP file in HELiOS at **View > Settings > Export**.

During installation, if the option **Use central directory for configuration data (across computers)** is activated, you can save the configurations of the HELiOS Desktop to a central computer and select and import them at **Configuration file**.



The availability of interfaces with HELiOS depends on the programs that are installed on your computer. With the exception of the HELiOS interface, you can only use 32Bit versions with HELiOS 32Bit, and 64Bit versions only with HELiOS 64Bit. For MS Office it is generally possible to use a 32Bit Office with HELiOS (64Bit). However, for old BOMs an additional, special ODBC connection will be required. In such cases, please contact our Consulting team.

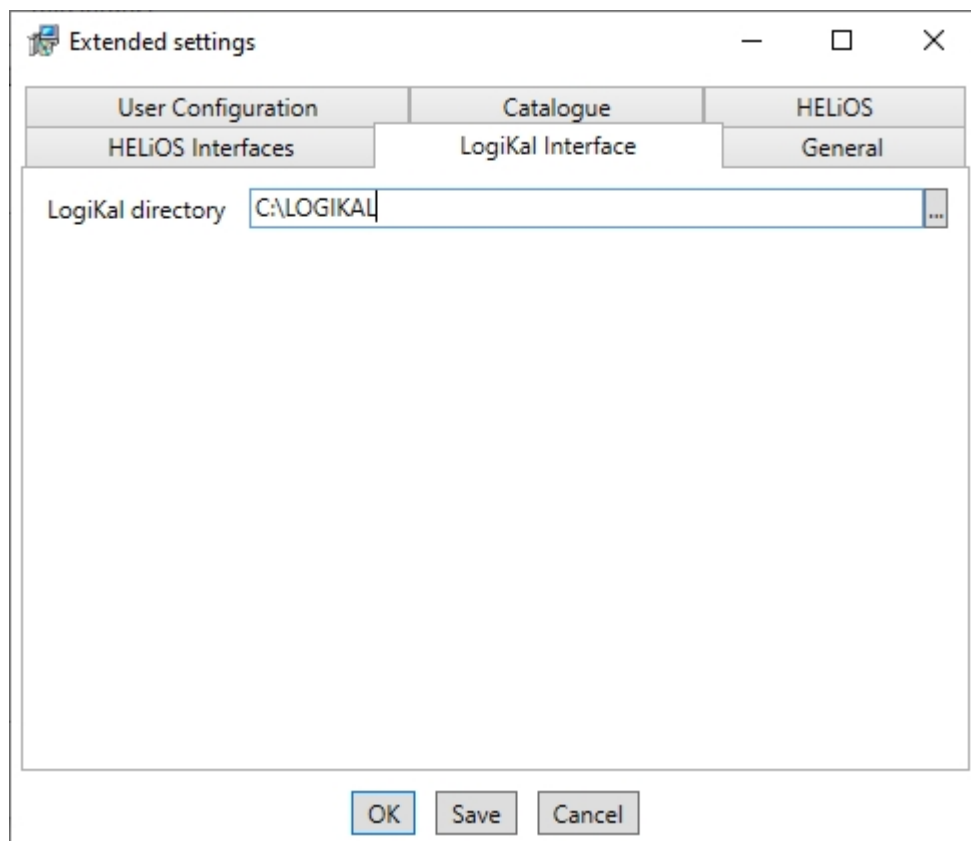
Multiple selections are also possible. The HELiOS functions will be integrated in the programs that are linked to HELiOS.



**Please note:**

- Integration of shared networks

If a directory is accessed by more than one computer, in the filegrup.dat under C: (for the Scenes directory) should not be listed a local path or the network connection letter, but the entire UNC path according to the pattern C:\\servername\ShareName\Directory. The filegrup.dat can be found in the HiCAD/HELiOS installation in the HiCAD exe directory and in case of an EPLAN interface as well under HELiOS EPLAN SyncService\exe. In the HELiOS Standalone installation the filegrup.dat can be found in the HELiOS exe directory.



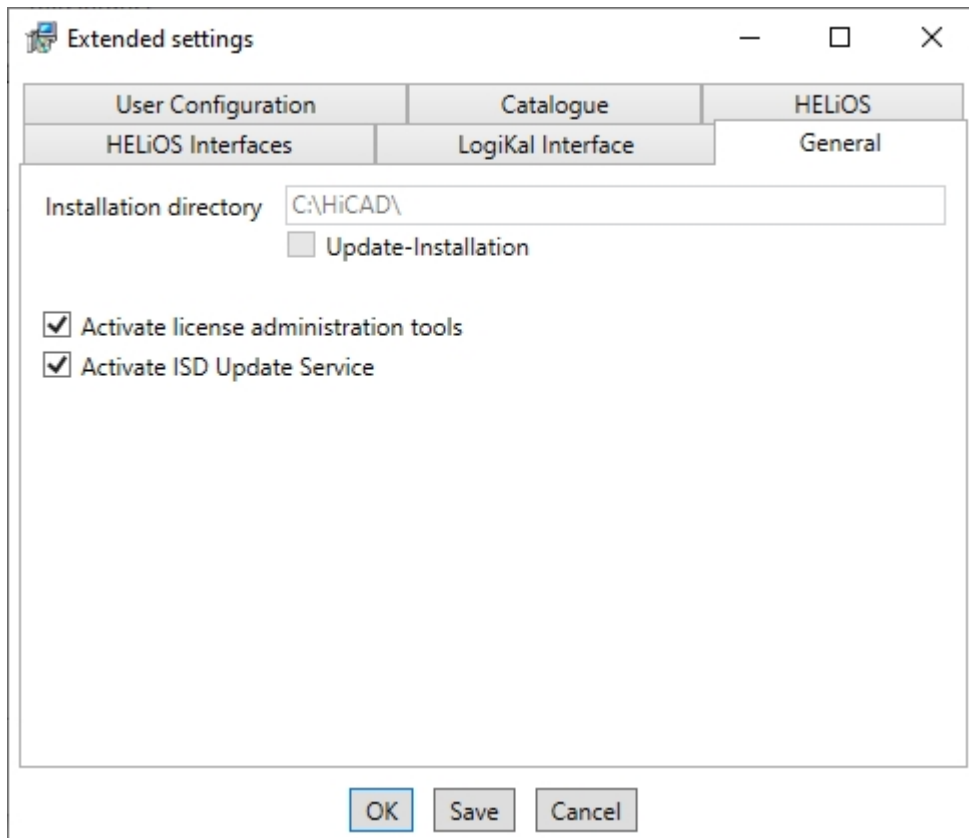
If you have installed **LogiKal** on your computer, you can enter the installation directory here.



**Please note:**

In HiCAD, at **Settings > Further directories** you can set the paths for the database of the **Configuration Editor**, the **Catalogue Editor** and **LogiKal**. These paths are located in the Windows Registry at **HKEY\_LOCAL\_MACHINE\SOFTWARE\ISD Software und Systeme\HiCAD\nnnn.n**.

**nnnn.n** is the HiCAD version number, e.g. 2500.0.



The **Activate license administration tools** option must be activated for the management of server licenses.



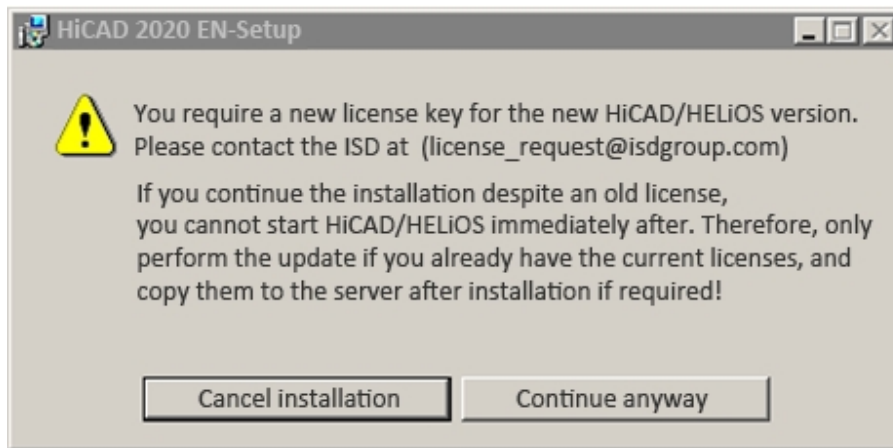
**Please note:**

During installing of HiCAD, a ISD License Manager that may exist will be uninstalled. By checkmarking the **Activate license administration tools** option you can reinstall the current standard ISD License Manager during the installation.

If you checkmark the **Activate ISD Update Service** option, a Hotfix will be searched on the ISD Web Server when you start HiCAD. You can also activate this option subsequently via the Windows Control Panel: There, choose **Programs and Features**, right-click on **HiCAD** and choose **Change**.

Click **Save** to save the **Extended Settings** to an .ini file. If you place the .ini file in the installation directory when installing server licenses, the settings will be applied.

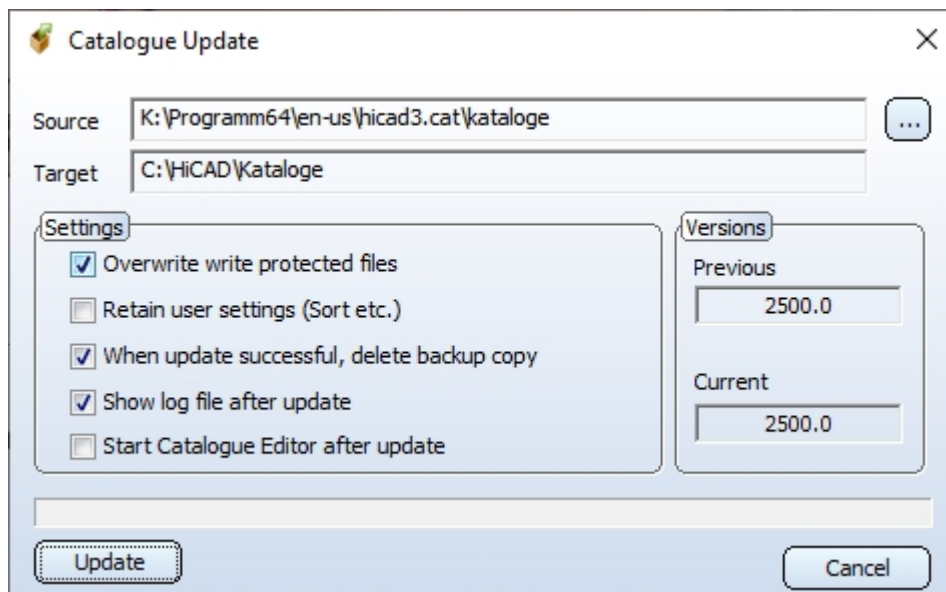
As soon as you exit the **Extended Settings** dialogue with **OK**, the installation will be started.



Click **Continue anyway** to start the installation.

Towards the end of the installation you can specify the procedure for the updating of the catalogue files. If you select **Cancel**, the catalogues will not be updated.

Please remember that HiCAD will check the version of the utilized version upon HiCAD start. If the catalogue directories are old there is a risk that HiCAD will search for catalogue entries which do not yet exist in the old catalogues. One example of this is the Textures that were integrated in the catalogue some time ago. If these are missing in the catalogue, you will have no access to these Textures in HiCAD. Use the CatalogueUpdate.exe program in the HiCAD EXE directory to update the catalogues



Specify the desired settings and click **Update**.

After successful updating, the update information for the replaced files will be shown in a dialogue window. The old files will be preserved and renamed, e.g. 0.mac > 0.mac.2500.

```

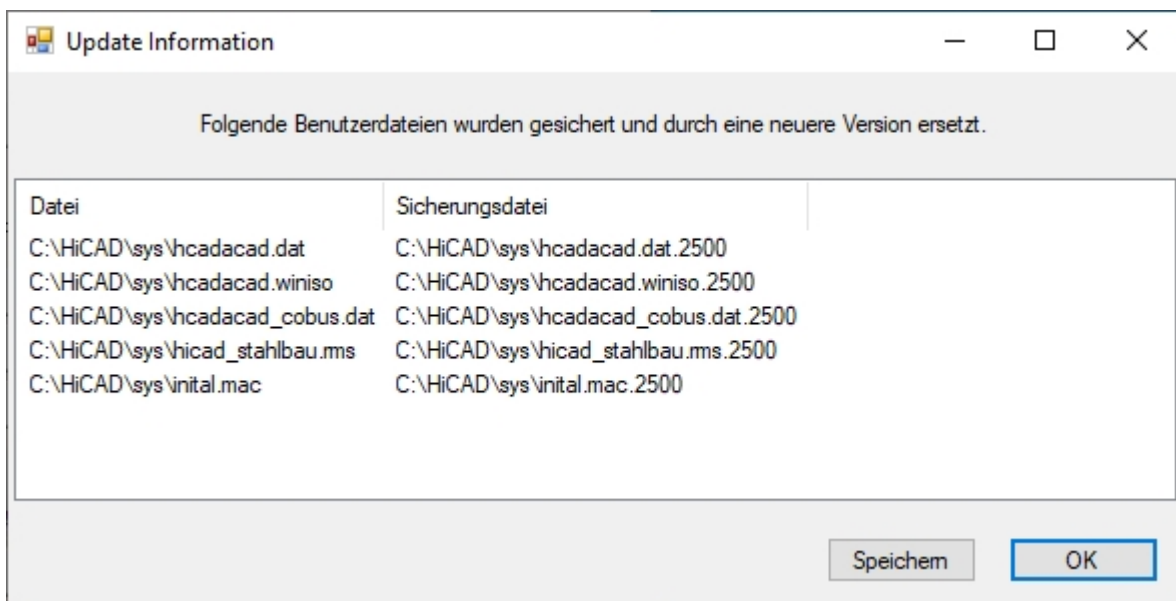
Update_2500.0_02.12.19_103215.log - Editor
Datei Bearbeiten Format Ansicht Hilfe
START: 02.12.2019, 10:32:15

SOURCE CATALOGUE: K:\Programm64\en-us\hicad3.cat\kataloge
TARGET CATALOGUE: C:\HiCAD\Kataloge

PREVIOUS VERSION: 2500

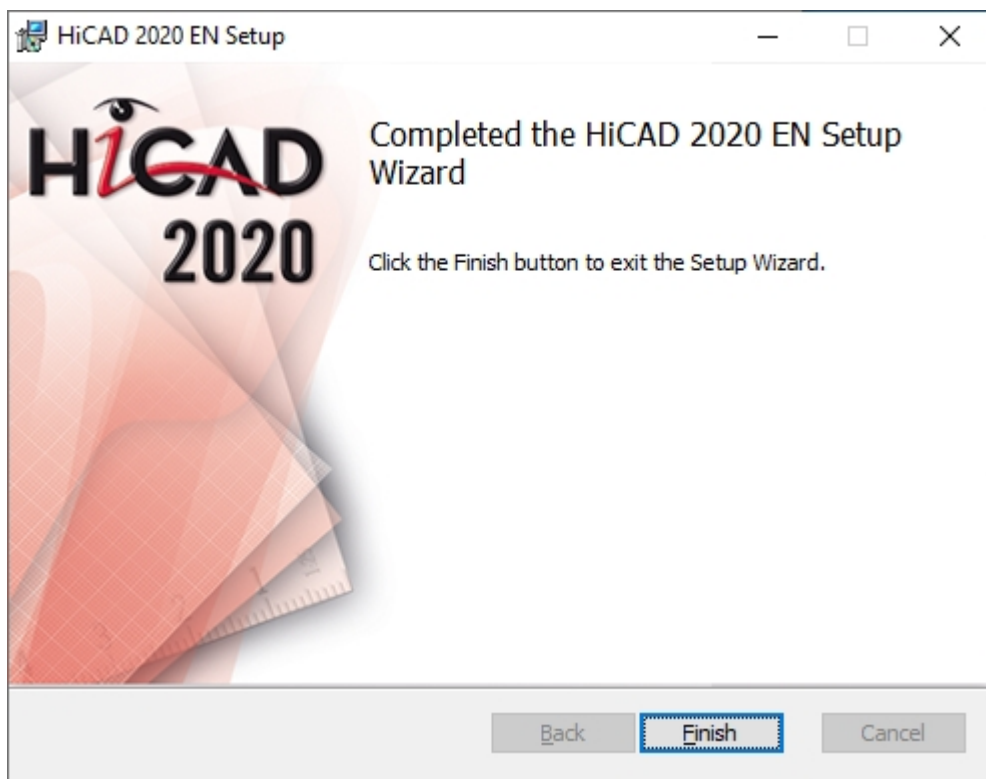
SETTINGS :
  Replace RO-Files :      1
  Delete Backup Files :  1
  Keep Personal Settings : 0
  Show Protocol File :   1
  Start CATEditor :      0

Δ2HF1 16 TPT -> NO CHANGED
  
```




Click **Save** to save this list to a directory of your choice. Click **OK** to continue with the installation.





Click **Finish** to complete your HiCAD installation. .

If you have already activated the new Server License before the installation, you can start HiCAD  now (Standard Konfiguration).

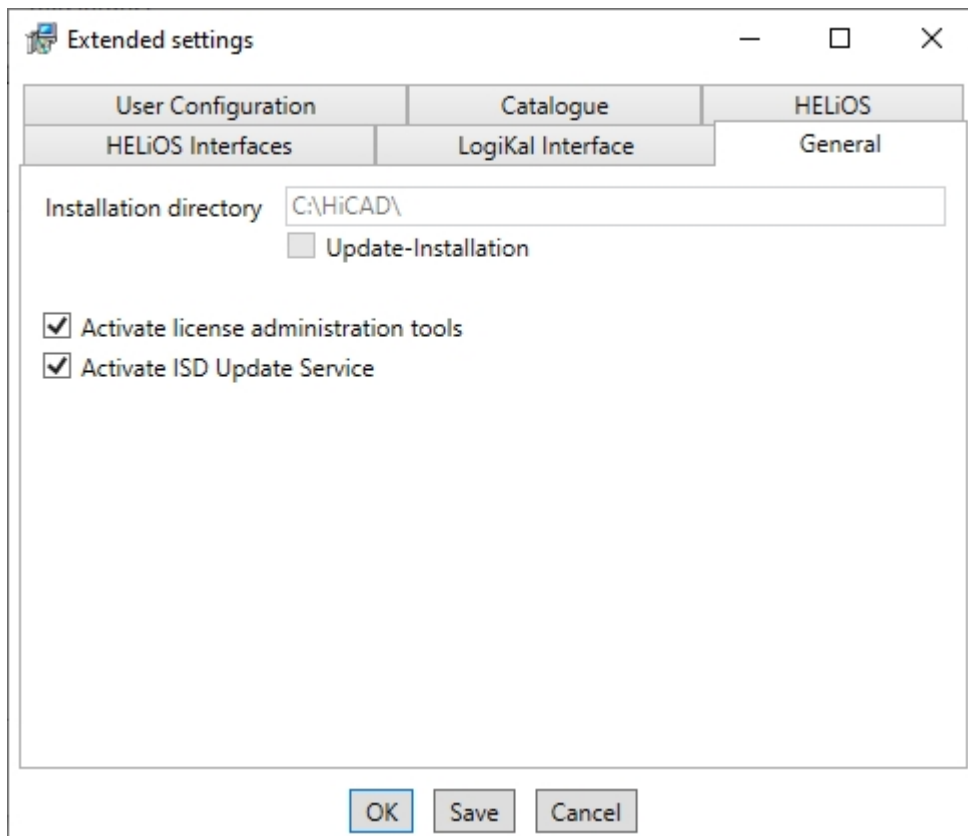
If you have a local license you need to activate it first before you can start HiCAD.

## ISD Update Service

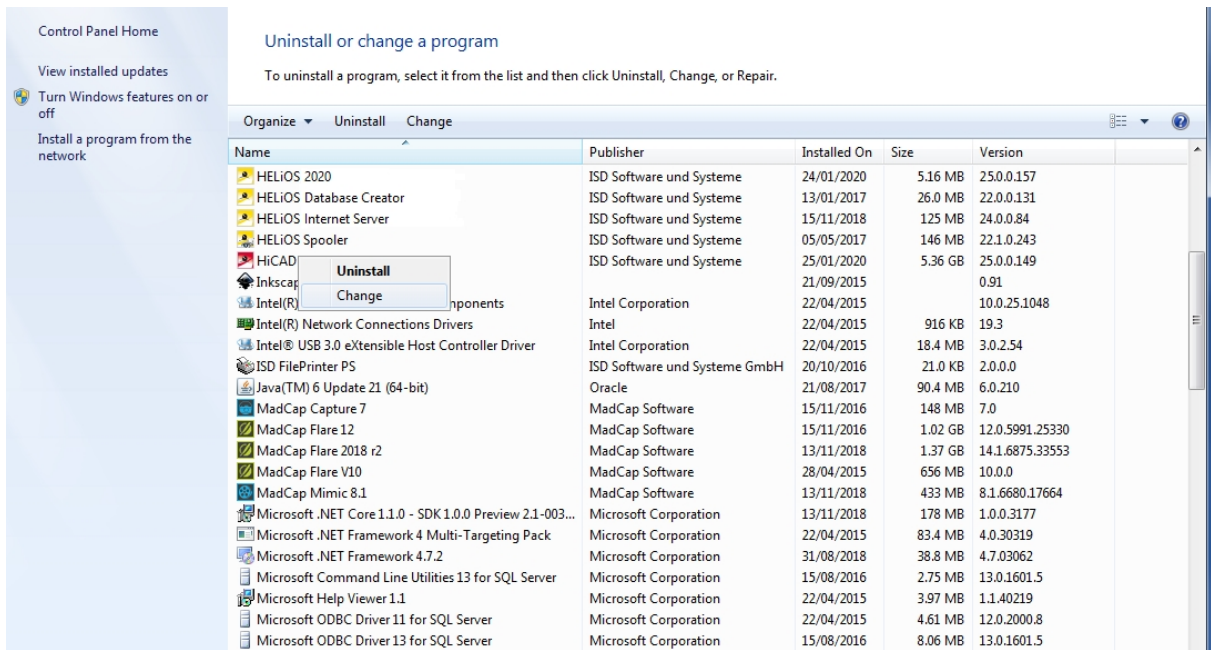
The automatic search for and installation of HiCAD/HELiOS updates (Hotfixes). For this you require the program **ISDUpdateSvc.exe**, that you can either activate during installation of HiCAD or install via the Windows Control Panel afterwards.

### Installing the ISD Update Service

You can activate the automatic search for and installation of HiCAD/HELiOS updates (Hotfixes), either during the installation of HiCAD/HELiOS or, later, via the Windows Control Panel.

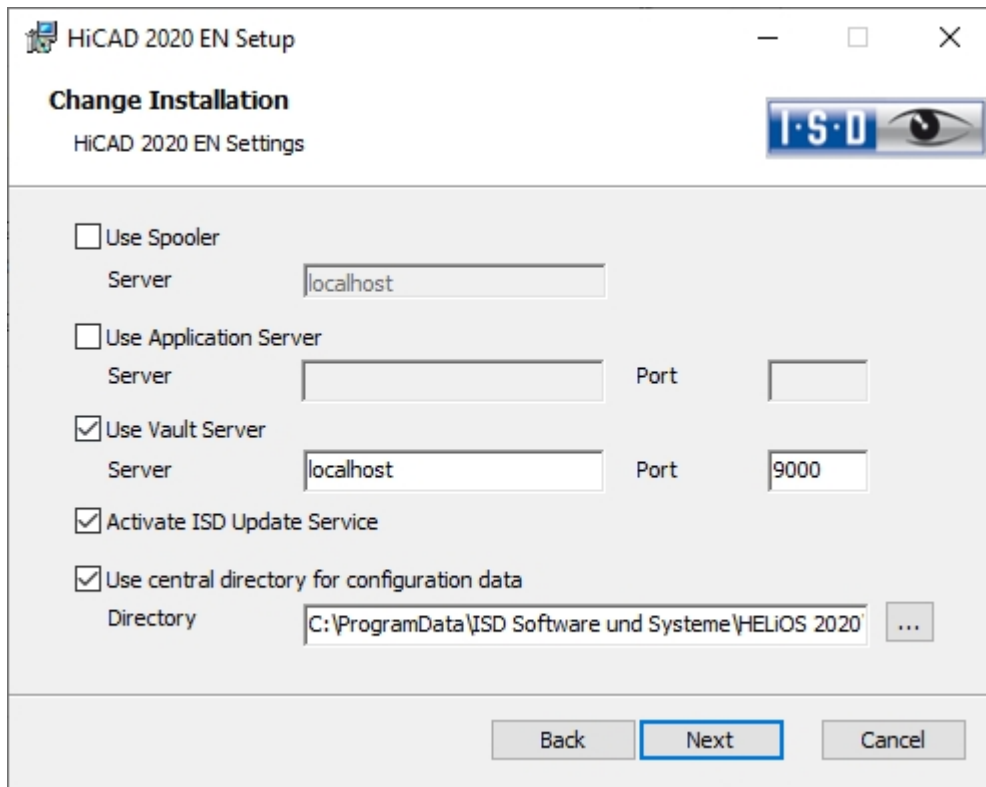


During installation you can go to **Extended settings > General** and activate the **Activate ISD Update Service** option to activate the automatic search for Updates on the ISD Server. You can also activate or deactivate this option afterwards via the Windows Control Panel.



In the Windows Control Panel, choose **Programs and Features**, right-click on **HiCAD/** and choose **Change**.






Checkmark **Activate the ISD Update Service** and click **Next**. After all options have been queried, click **Change**.

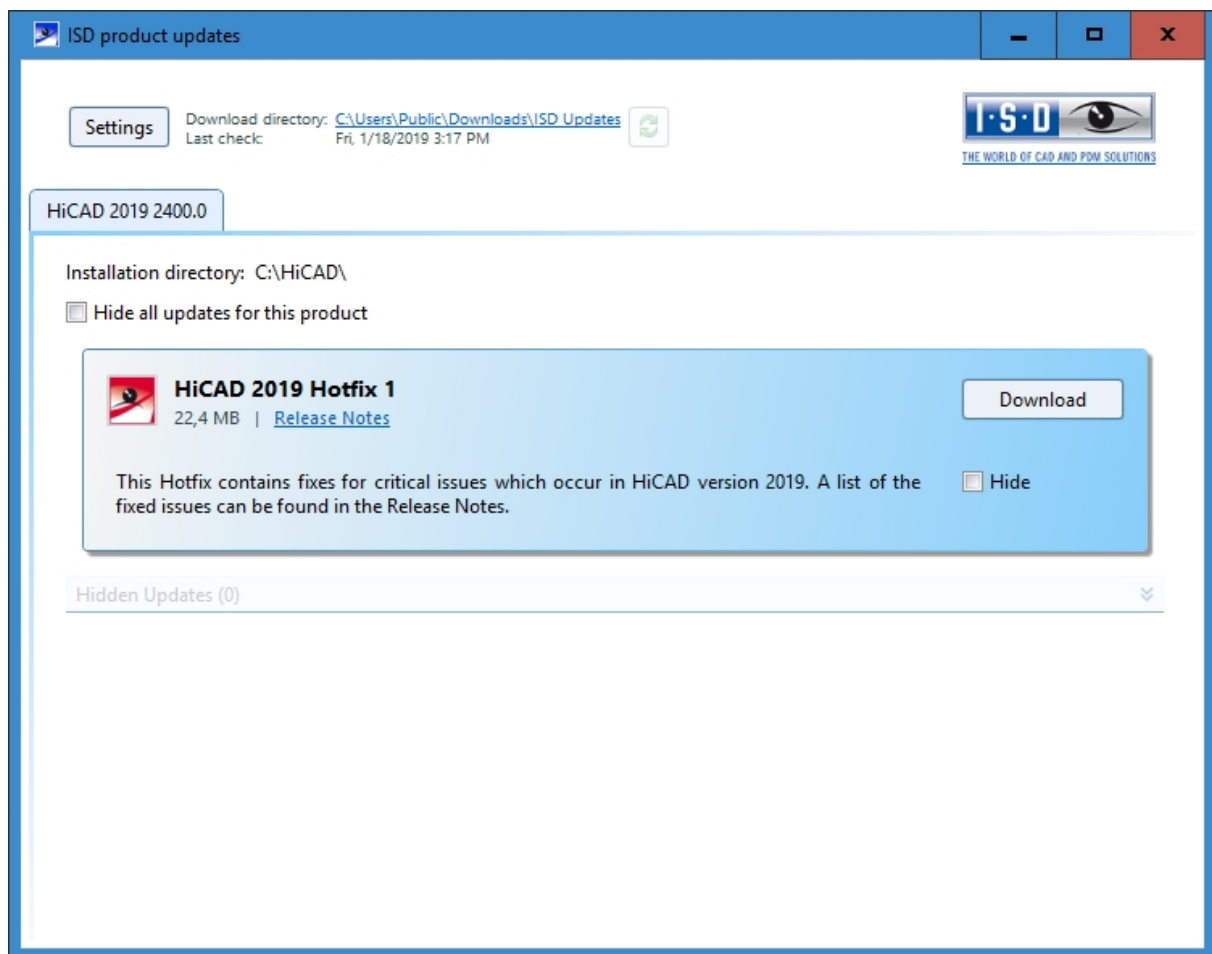
After successful installation, the program ISDUpdateSvc.exe will be located by default in directory C:\Program Files\ISD Software und Systeme\ISD Update Service

## Using the ISD Update Service

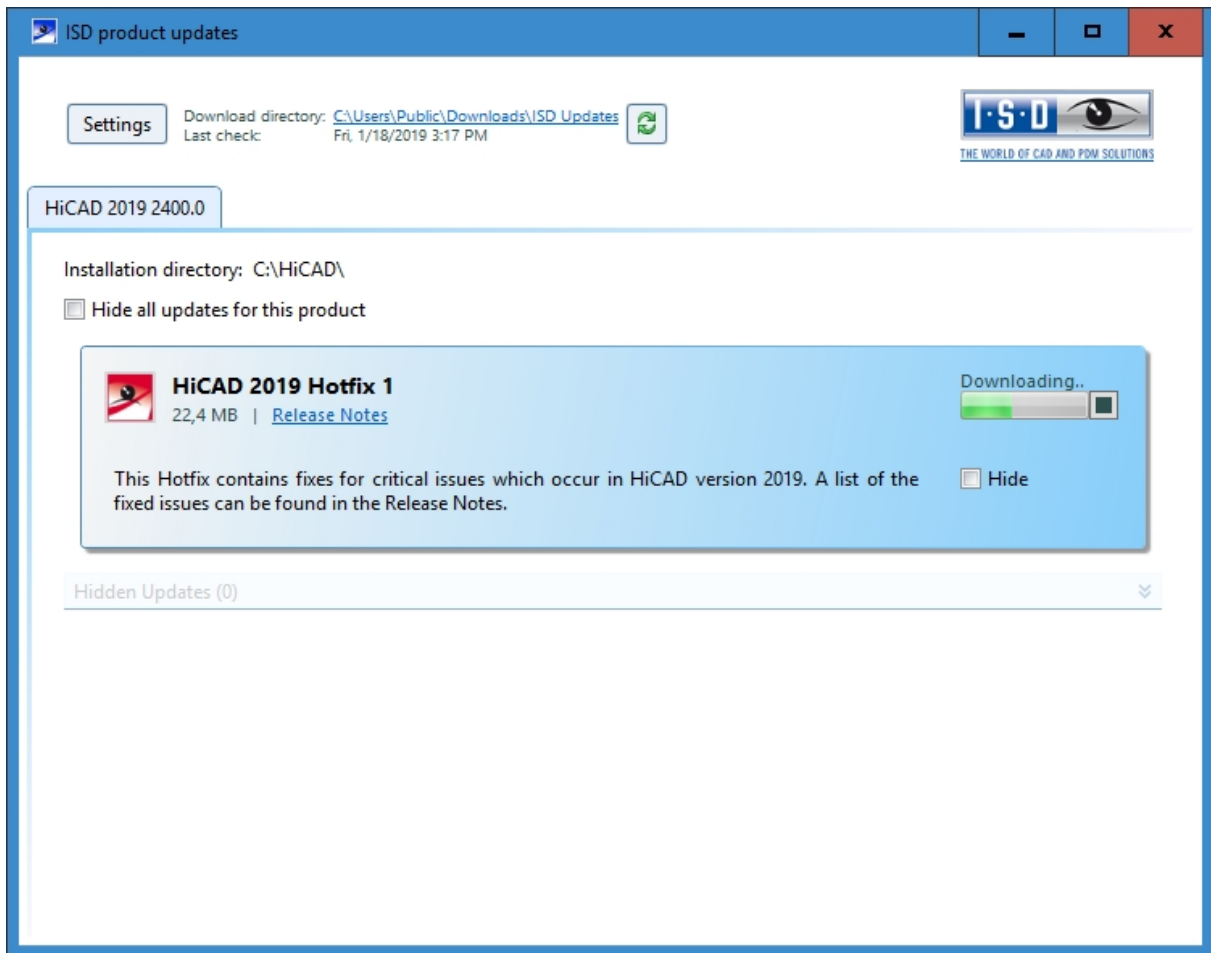
If you have installed the ISD Update Service, the following message appears at the bottom right of your screen whenever a Hotfix is available:

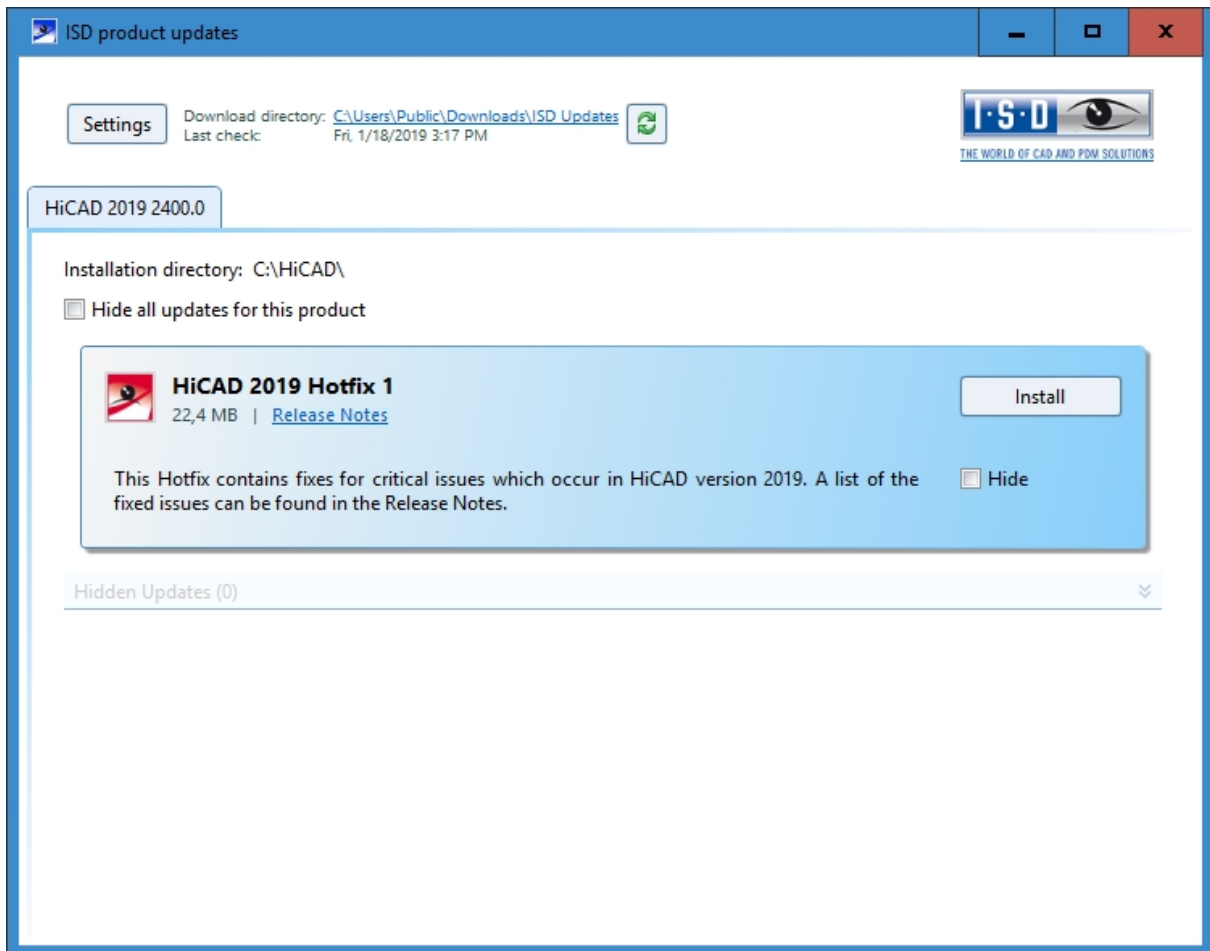


Click on the message or double-click on the  icon at the bottom right to start the ISDUpdateSvc.exe program. You can also directly double click on the ISDUpdateSvc.exe file to start the program. Confirm the query in the Windows User Account Control dialogue window.

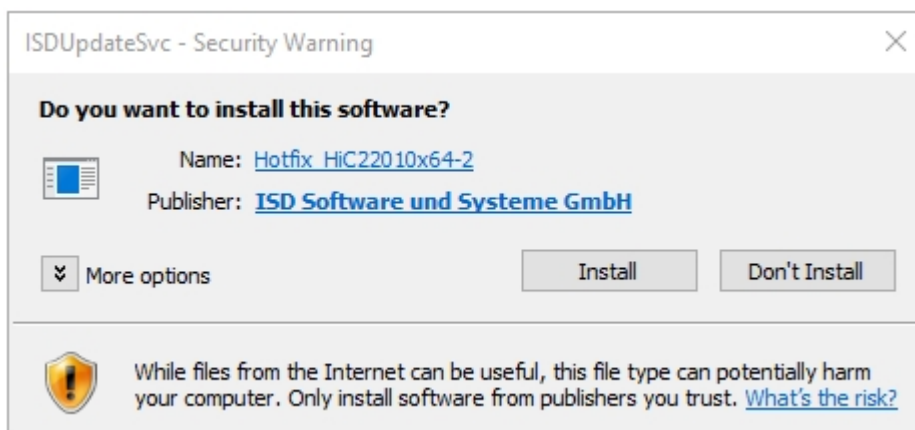


If an update is available, click the **Download** button to download it from the ISD Server to your computer. If an update should not be displayed anymore, activate the **Hide...**  checkbox.






After downloading of the Hotfix, click **Install**.




Confirm the Windows Security Warning with **Install**.

Follow the instructions on the screen to install the update.

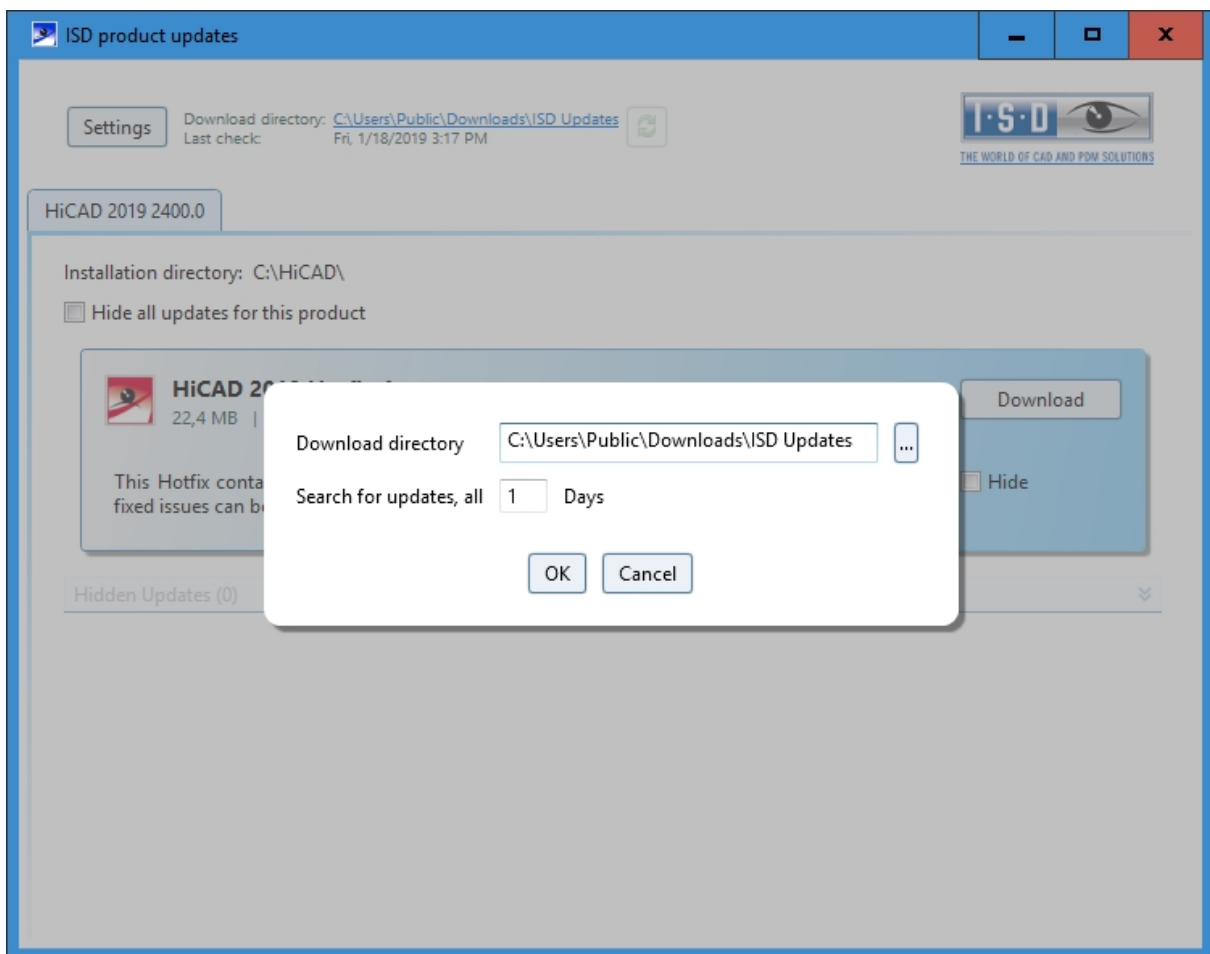
The HiCAD Info window displays the current HiCAD version number (including build number) as well as the numbers of any installed hotfixes. To show the info window, click on **Help Topics and Information**  and choose **HiCAD**.




### ISD Update Service: Settings

If you have installed the ISD Update Service, you can, after calling the program (with the  icon at the bottom right on the Windows Taskbar, or by double-clicking on the file ISDUpdateSvc.exe), configure the search and the installation with the **Settings** button.



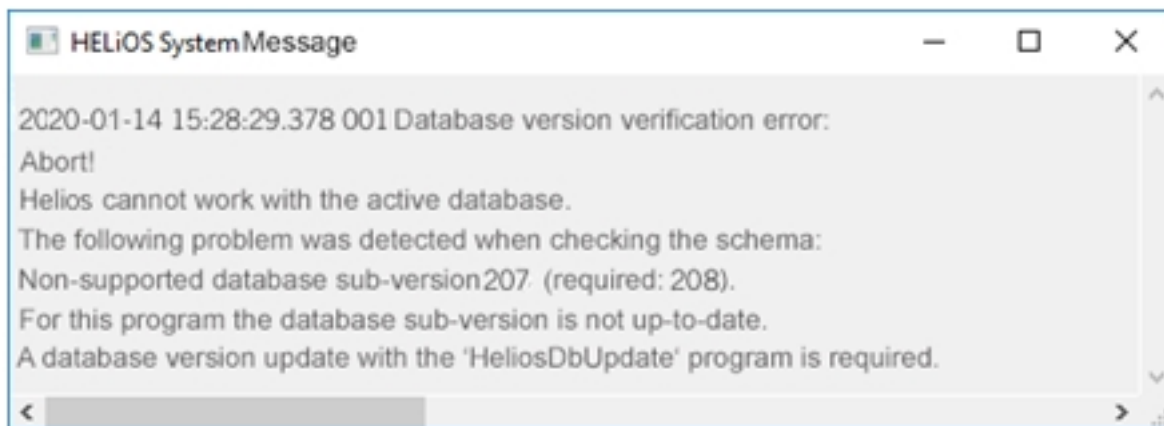


Via the **Settings** button you can specify the download directory for Updates and a time interval for the search for updates.

You can use the  icon to start the search for updates manually.

## Updating the HELiOS Database (Database Schema)

Improvements of the HELiOS functionality require a regular updating of the database; if the database version is no longer up to date, HELiOS displays the following message (version numbers may vary) when it is started:



To update the database schema, use the program **HeliosDbUpdate.exe**.

### HELiOS Data base schema

As existing datasets with non-compliant conditions may cause conflicts during the central update process of the HELiOS delivery database, you should consider the following:

1. **Do a database backup:** You should make sure that a backup of your HELiOS database has been created before the update. This can be done with the HELiOS Database Creator or via your SQL server application. Please contact the ISD hotline if you have any questions or need support for your individual system architecture.
2. **The log file of the update:** If any conflicts occur during the update, they are traced in the log file **HeliosDbUpdate.txt** (in the system path %appdata%\ISD Software and Systems\HeliosDbUpdate\). Have this file ready if you contact the ISD hotline for troubleshooting and successful updates.



#### Please note:

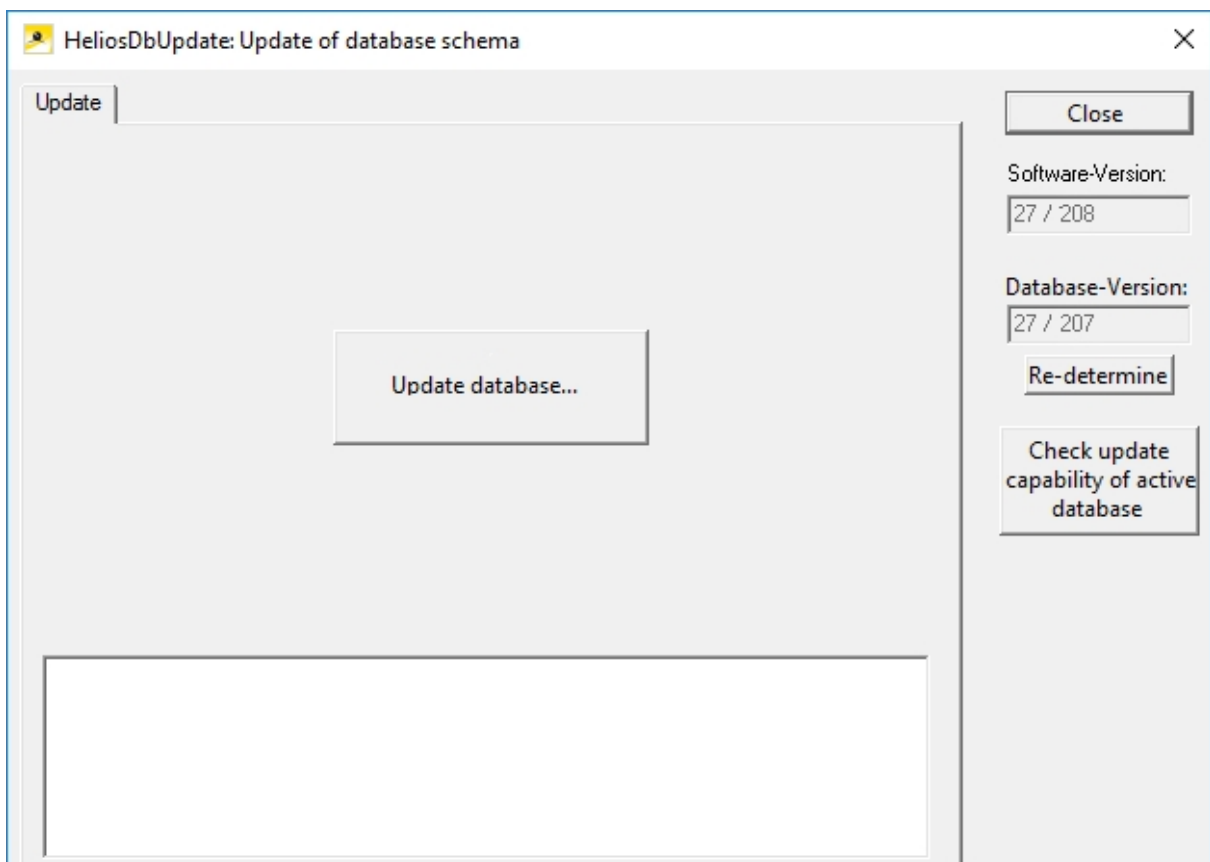
- It is mandatory to make a database backup before the update, as the update can normally only be reverted by importing the backup.
- After an update, access is only possible with the appropriate HELiOS version. A mixed operation with HELiOS versions requiring an older database schema is not possible.
- The update must be performed once and applies to all HELiOS installations.
- The responsible administrator should always be informed prior to the update, in order to enable a coordinated conversion.

- In some cases, a window with the message "The designations of the database attributes must be updated." will be displayed during the update process. In such cases, the language-dependent standard designations for attributes will be updated. This applies only to standard designations of attributes which have not been changed or created by the user, i.e. only for attributes according to the default settings. This means that designations that were assigned via Attribute Editor by the user will remain unchanged in the process.

The update can be performed from any HELiOS workstation with a database connection.

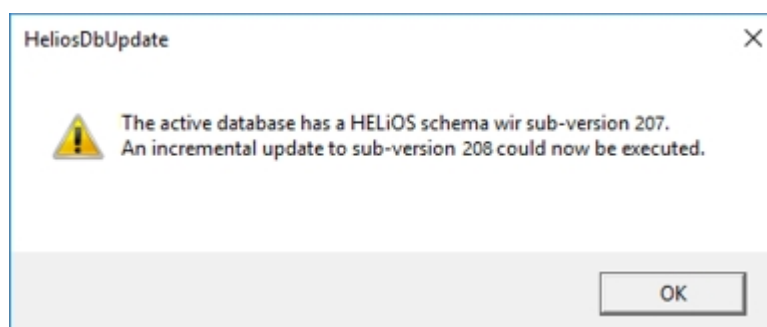
The **HeliosDbUpdate.exe** program is used for this purpose. It can be started via the Windows Explorer, or similar programs, from the exe directory of the HELiOS installation.

The following mask (software and database version may vary) will be displayed after starting the program:



Click the **Update database...** button to start the update.

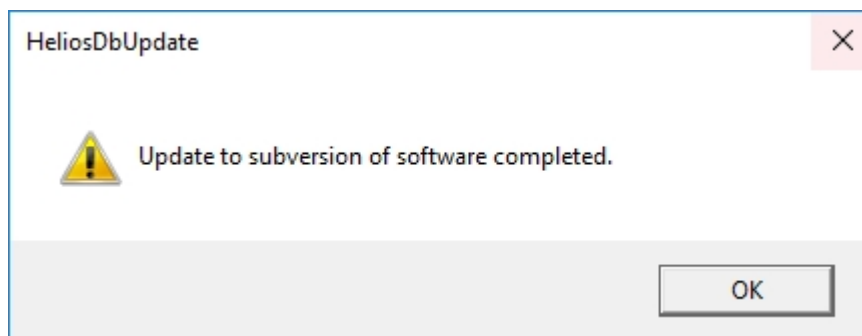
The following message (version numbers may vary) will be displayed after clicking the button.



If you confirm this message with **OK**, another confirmation prompt is displayed.



Confirm with **Yes** to perform the update. After a successful update, the following message will be displayed.



A further check can be carried out by clicking the **Re-determine** button in the main window of the program, after confirming this message with **OK**.

After a successful update, software version and database version should be identical.

 **Please note:**

If you use HiCAD and HELiOS together it may occur after an update of HiCAD that according to the error message for verification of your database version the number of the required sub-version is lower than that of the current one, which is, according to the message, not supported.

In this case, please contact our Hotline:

Tel: 02 31 / 97 93 - 166

Fax: 02 31 / 97 93 - 101

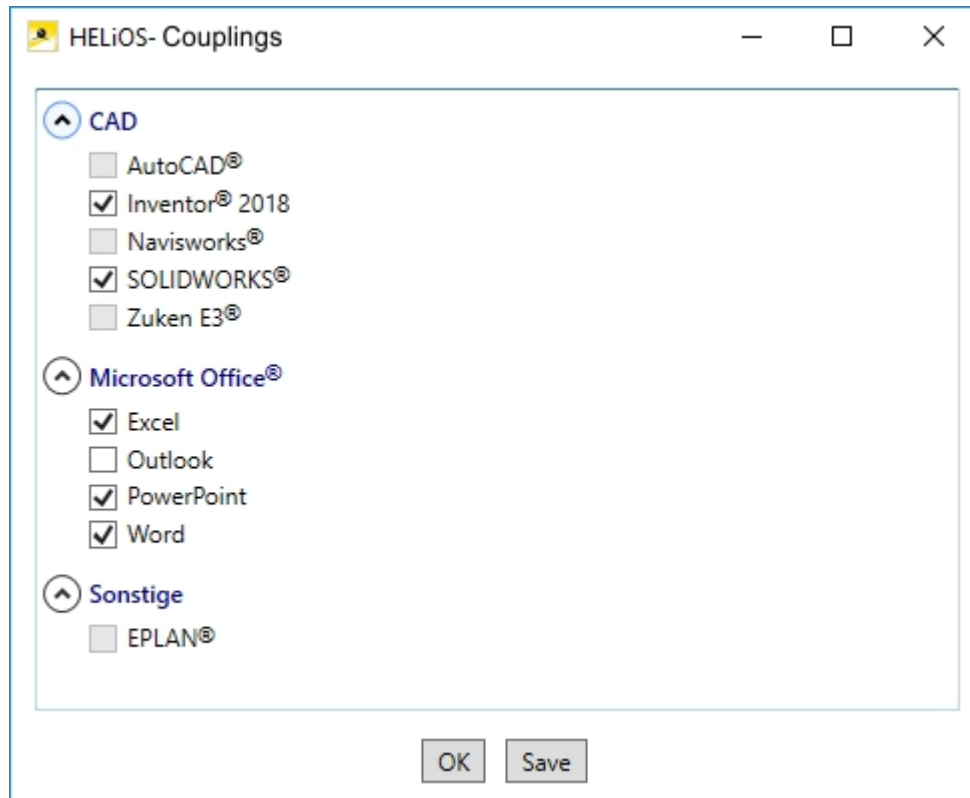
E-Mail: [support@isdgroup.com](mailto:support@isdgroup.com)

## Manual Registration of Multi-CAD Add-ins

If you use both HiCAD and HELiOS on your system in mixed operation it is not possible (as opposed to the standalone version of the HELiOS Desktop) to establish an interface between HELiOS and further CAD or CAE software via an update or modification installation.

To do so you can use the **HeliosCouplings.exe** tool (in the /exe/ directory of the HiCAD installation).

It can be used to activate interfaces with AutoCAD, Inventor, SOLIDWORKS or EPLAN.



Activate the checkbox of the required software and confirm with **OK**. The interface will then be activated.

The respective software has to be installed in the system.

## New Mask Editor for HELiOS

The Mask Editor (as of HELiOS 2020) has been completely revised. Besides a modern ribbon design, which also supports operation at high resolutions, the basis for a further expansion of the masks and the editor has been laid.

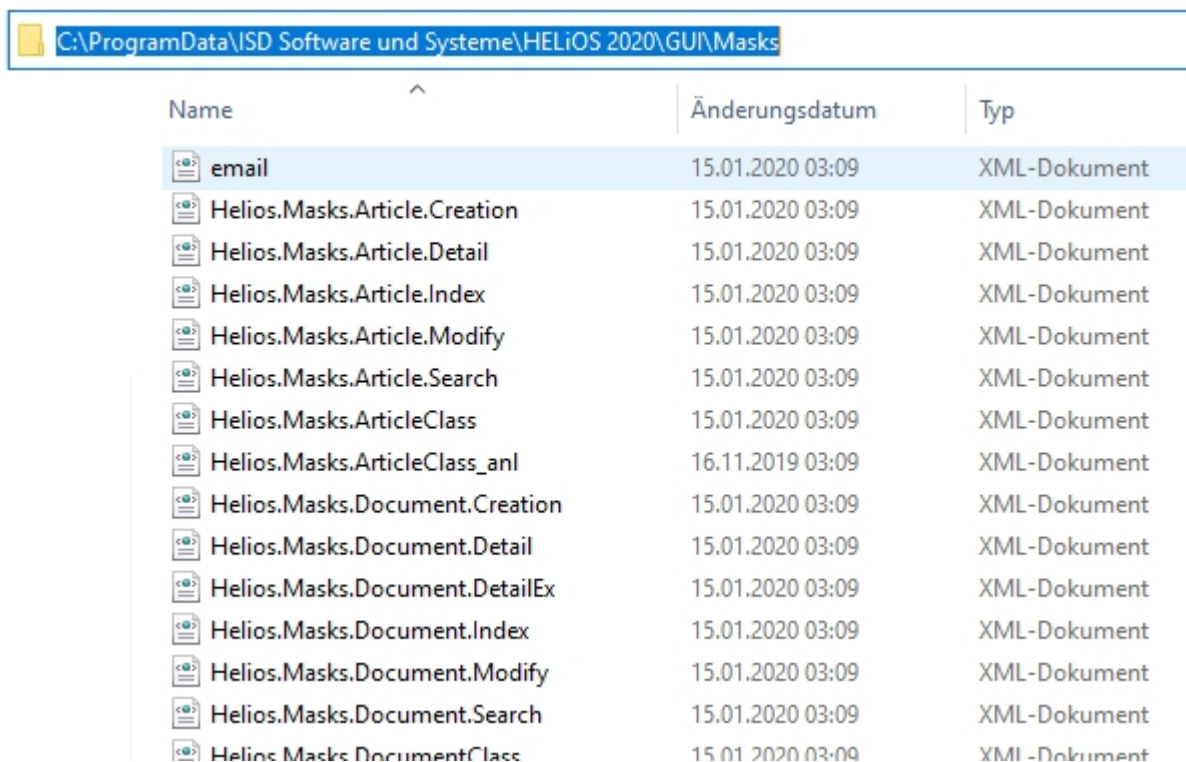
The revision of the mask editor has also led to a conversion of the mask format to XML. Mask files are now managed outside the installation directory.

### New mask format and central mask configuration

In HELiOS 2020, the previous mask format has been changed from .msk to .xml, parallel to the revision of the mask editor. In addition, mask files are now managed outside the installation directory, resulting in some changes in the system architecture that administrators should urgently consider:

The masks of older versions that were previously stored in the \sys\ directory of the installation are automatically converted to the new XML format by an update installation of an older HELiOS version to HELiOS 2020 (V 2500.0) or higher and stored at **%Programdata%**.

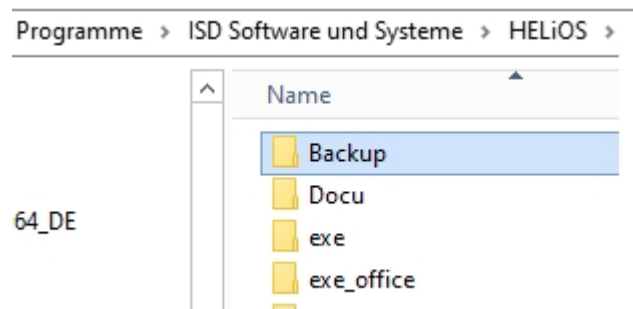
At **%Programdata%**, the masks are stored in a version-specific path, i.e. for HELiOS 2020 this path could look like this: "C:\ProgramData\ISD Software und Systeme\HELiOS 2020\GUI\Masks". In a later version, the version identifier in the path will be correspondingly higher.



Name	Änderungsdatum	Typ
email	15.01.2020 03:09	XML-Dokument
Helios.Masks.Article.Creation	15.01.2020 03:09	XML-Dokument
Helios.Masks.Article.Detail	15.01.2020 03:09	XML-Dokument
Helios.Masks.Article.Index	15.01.2020 03:09	XML-Dokument
Helios.Masks.Article.Modify	15.01.2020 03:09	XML-Dokument
Helios.Masks.Article.Search	15.01.2020 03:09	XML-Dokument
Helios.Masks.ArticleClass	15.01.2020 03:09	XML-Dokument
Helios.Masks.ArticleClass_anl	16.11.2019 03:09	XML-Dokument
Helios.Masks.Document.Creation	15.01.2020 03:09	XML-Dokument
Helios.Masks.Document.Detail	15.01.2020 03:09	XML-Dokument
Helios.Masks.Document.DetailEx	15.01.2020 03:09	XML-Dokument
Helios.Masks.Document.Index	15.01.2020 03:09	XML-Dokument
Helios.Masks.Document.Modify	15.01.2020 03:09	XML-Dokument
Helios.Masks.Document.Search	15.01.2020 03:09	XML-Dokument
Helios.Masks.DocumentClass	15.01.2020 03:09	XML-Dokument

This conversion or directory is not dependent on whether the local or central directory was selected for the interface configuration (see below).

The old configuration file can then be found in a **Backup** directory that was created below the installation folder.



The new masks at **%Programdata%** should not be overwritten in any case, because these are the "delivery status", which may be updated by later update installations. If masks are edited and changed with the mask editor, they are stored at **%Appdata%** and are called up by HELiOS when working in corresponding masks from this directory.



#### Important:

This means: If masks are to be distributed uniformly to different workstations, they must be saved under **%Appdata%** and not (!) under **%Programdata%**.

## Mask Converter

During the update installation - starting from an installation earlier than HELiOS 2020 - the tool `MskToXmlUpdate.exe` is placed in the `exe` directory of the HELiOS installation. This tool is used by the installation program when updating to HELiOS 2020 for automatically converting masks in the old MSK mask format to the new XML mask format. The images contained in the masks are also copied together with the masks.

If necessary, this tool can also be used to convert old mask files to the new XML mask format at a later date. To do this, the tool must be started as administrator from the Windows command line as follows

**MskToXmlUpdate** **-BACKUPPATH=**path name **-MSKPATH=**path name

A path must be specified for both the **BACKUPPATH** and **MSKPATH** parameters.

### BACKUPPATH

Here the directory must be specified to which the "old" MSK/BMP files are to be moved after conversion.

After the conversion, a conversion log with the name `_MskToXmlResult.txt` is saved in this directory.

### MSKPATH

Here the directory has to be entered containing the files to be converted.

Example:

**MskToXmlUpdate** **-BACKUPPATH=C:\helios\sys\backup\_msk** **-MSKPATH=C:\helios\sys\**

The files are automatically converted into the file `%PROGRAMDATA%` of HELiOS, for instance `[...]\ProgramData\ISD Software und Systeme\HELiOS 2020\GUI\Masks`.

## New File Format for 2-D Files in HiCAD

Similar to the KRA files in 3-D there are now 2-D figure archives with the filename extension .FGA. This contain the previous 2-D data (.FIG), the DB attributes (.FIG.DBA2) as well as the attribute container data (.FIG.ATC) and replaces the former 2-D files. Moreover, the new FGA format allows the displaying of 2-D files in HiCAD Viewer and also contains the 2-D HCM files.

### Discontinuation of the old figure format (FIG)

Since HiCAD 2017 we have been supporting FGA as figure format (before FIG). Starting with HELiOS 2021 (Version 2600.0), we assume that the figures stored in HELiOS have been converted to the new format, or convert the still existing figures automatically as part of the database sub-version update to Version 2600.0.

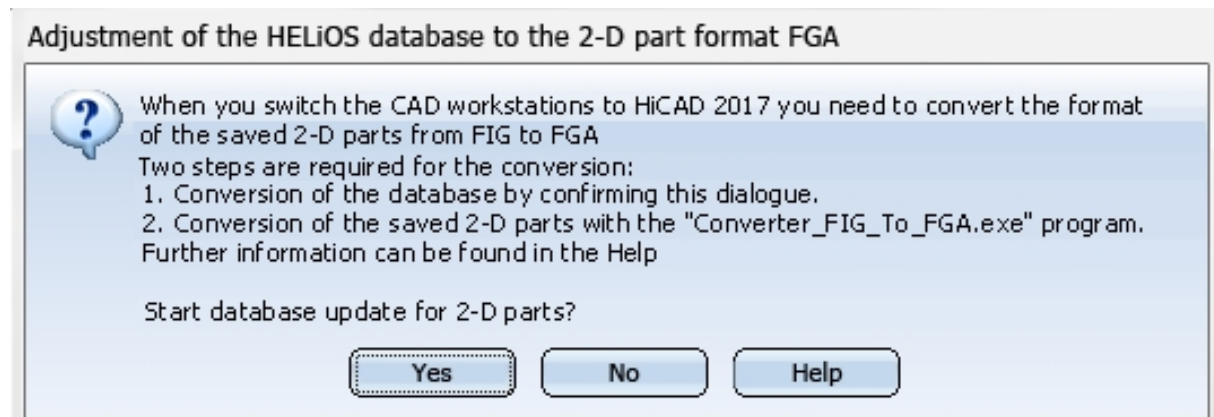
Please use only this new .FGA format for conversion of existing 2-D .FIG files! For this purpose, use the new Converter\_FIG\_To\_FGA.exe tool in the HiCAD\exe directory.

When updating from HiCAD 2016 or older, all standardly supplied 2-D parts (e.g. drawing frames) in the different installation directories will be converted from FIG to FGA by default during the installation. The data in the original state will be saved in a folder (resp. a ZIP archive) in the scene and catalogue directory. The converted files will be documented in a LOG file.

When creating an interface between HiCAD and HELiOS, you will be prompted to update the databases after a new installation or an update installation. The search for and management of 2-D parts will only be possible after conversion of the database and the existing .FIG files with the above mentioned tool.

## Conversion of 2-D Data to the FGA Format

If you are managing your HiCAD files with HELiOS a message will appear after an update or a new installation from HiCAD 2017 when you start HiCAD as Administrator:

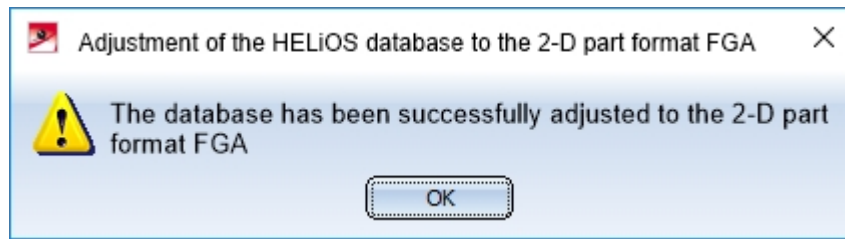


By clicking **Yes** you convert the files to the database. This means that the 2-D part name contained in the data will be changed from \*FIG to \*.FGA. Moreover, the database now only searches for FGA files. Therefore, you also have to convert the 2-D parts into FGA files by using the **Converter\_FIG\_To\_FGA.exe** program.

If you have installed HiCAD 2017 or higher for testing purposes, you will have to click **No** when the message appears. Older HiCAD versions (before HiCAD 2017) cannot load FGA files. A database conversion cannot be undone.

After the conversion the following message appears





Now start the **Converter\_FIG\_To\_FGA.exe** program to convert the 2-D parts.

Convert FIG to FGA

Folder to scan:  D:\210X\dev\Install\Szenen

Filegrup.dat:  C:\HiCAD\exe\FILEGRUP.DAT

Convert	Folder	HicadDriveLetter	*.FIG
<input checked="" type="checkbox"/>	C:\HiCAD\sys	, Z	0
<input checked="" type="checkbox"/>	C:\HiCAD\szenen	A, C, E, F, G, H, I, J, N, Q, S, T, U, V, 4	0
<input checked="" type="checkbox"/>	C:\HiCAD\norm	B	0
<input checked="" type="checkbox"/>	C:\HiCAD\vega	D	0
<input checked="" type="checkbox"/>	C:\HiCAD\material	K	0
<input checked="" type="checkbox"/>	C:\HiCAD\REFTEILE1	L	0
<input checked="" type="checkbox"/>	C:\HiCAD\REFTEILE2	M	0
<input checked="" type="checkbox"/>	C:\HiCAD\pneu	O	1
<input checked="" type="checkbox"/>	C:\HiCAD\plo	P	0
<input checked="" type="checkbox"/>	C:\HiCAD\makroabw	R	0
<input checked="" type="checkbox"/>	C:\HiCAD\vetesym	W	0
<input checked="" type="checkbox"/>	C:\HiCAD\temp	X, #	0
<input checked="" type="checkbox"/>	C:\HiCAD\custom	Y	0
<input checked="" type="checkbox"/>	C:\HiCAD\makro2d	0	0
<input checked="" type="checkbox"/>	C:\HiCAD\makro3d	1	0
<input checked="" type="checkbox"/>	C:\HiCAD\makrost3d	2	0
<input checked="" type="checkbox"/>	C:\HiCAD\makromod3	3	0

Scan for \*.FIG     Convert FIG->FGA


Create backup (zip)     Overwrite existing FGA

Folder backup and log: C:\Users\Doku\Documents\ISD Software und Systeme\Converte

Folder	File	*.FIG	*.FIG.DBA2	*.FIG.ATC	*.FGA
1	D:\210X\dev\Install\Szenen	DINA0	✓	✓	✗
2	D:\210X\dev\Install\Szenen	DINA0_TS	✓	✓	✗
3	D:\210X\dev\Install\Szenen	DINA1	✓	✓	✗
4	D:\210X\dev\Install\Szenen	DINA1_TS	✓	✓	✗
5	D:\210X\dev\Install\Szenen	DINA2	✓	✓	✗
6	D:\210X\dev\Install\Szenen	DINA2_TS	✓	✓	✗
7	D:\210X\dev\Install\Szenen	DINA3	✓	✓	✗
8	D:\210X\dev\Install\Szenen	DINA3_TS	✓	✓	✗
9	D:\210X\dev\Install\Szenen	DINA4H	✓	✓	✗
10	D:\210X\dev\Install\Szenen	DINA4H_TS	✓	✓	✗
11	D:\210X\dev\Install\Szenen	DINA4Q	✓	✓	✗
12	D:\210X\dev\Install\Szenen	DINA4Q_STAHLBAU	✓	✓	✗
13	D:\210X\dev\Install\Szenen	DINA4Q_TS	✓	✓	✗
14	D:\210X\dev\Install\Szenen	LSTRAS50	✓	✗	✗

Close

- Folder to scan

Enter the path of the folder that should be converted. Via this symbol  you can select the folder in the Windows Explorer.

The folder will only be evaluated if there is an activated checkbox  behind Folder to scan.
- Filegrup.dat

In order to search the directories in the Filegrup.dat for FIG files the checkbox behind Filegrup.dat has to be activated.

All directories from the Filegrup.dat that are activated  will be considered when searching for FIG files.
- Create backup (zip)

If you have activated Create backup a ZIP file with all selected FIG files will be created.
- Overwrite existing FGA

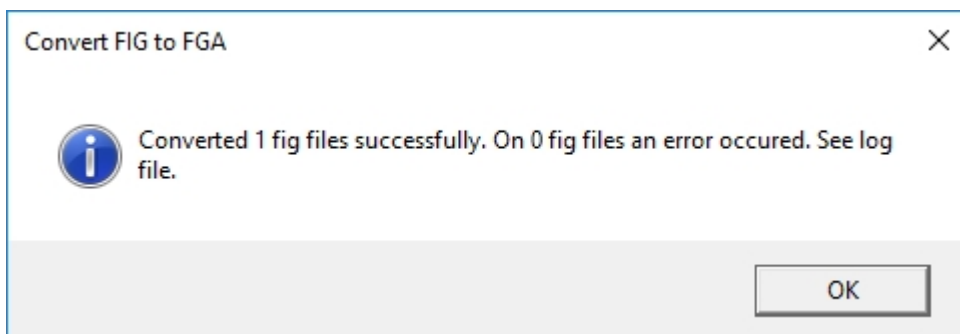
If you have activated the Overwrite existing FGA option, existing FGA files will be overwritten if the names are identical with the converted files.
- Folder backup and log

Enter the path for the backup and log file here.
- Scan for \*.FIG

By pressing the Scan for \*.FIG button you start the search for FIG files in the selected folders.
- Convert FIG -> FGA

Via Convert FIG -> FGA you start the conversion. In the process all \*.FIG, \*.FIG.DBA2 and \*.FIG.ATC will be deleted.

After the conversion the number of converted files will be displayed. Furthermore, the number of defective converted files will be shown. Further information regarding the error can be found in the LOG file.

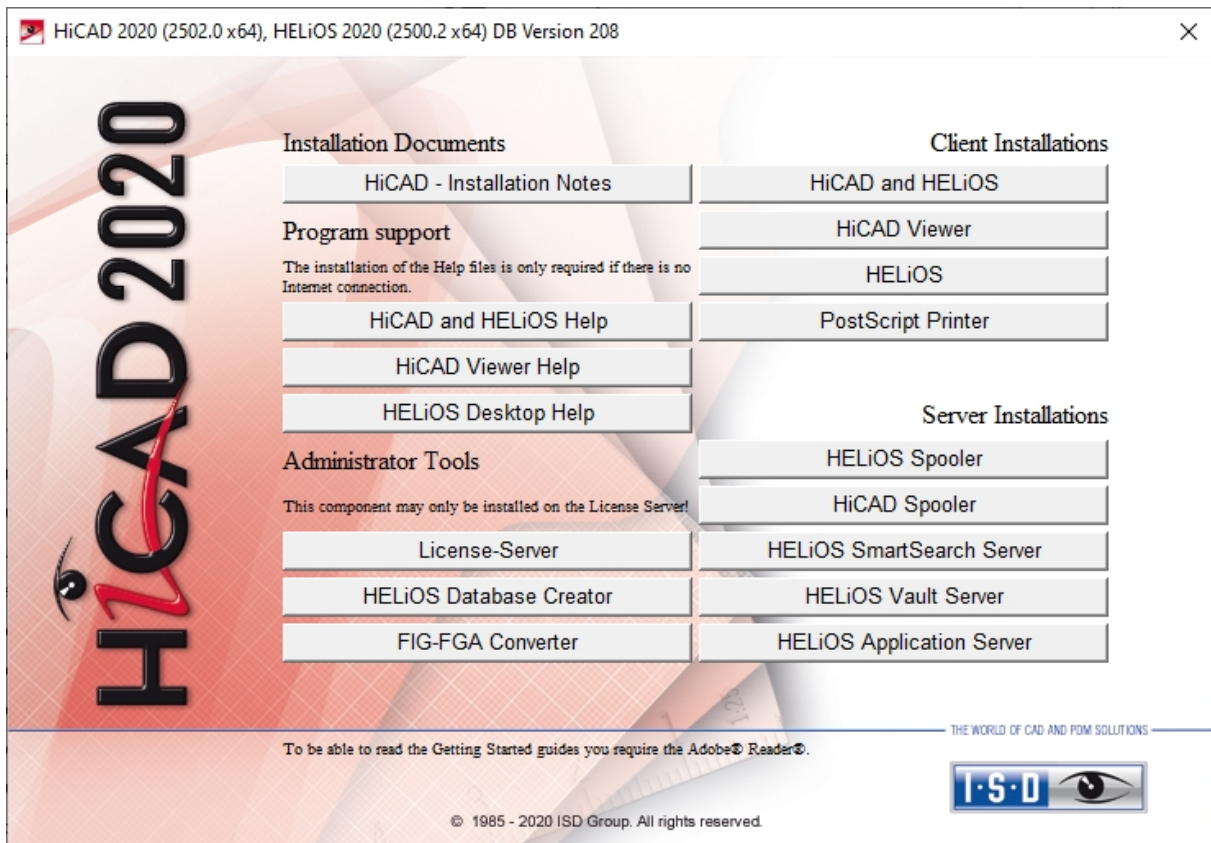


### Installing the FIG-FGA Converter

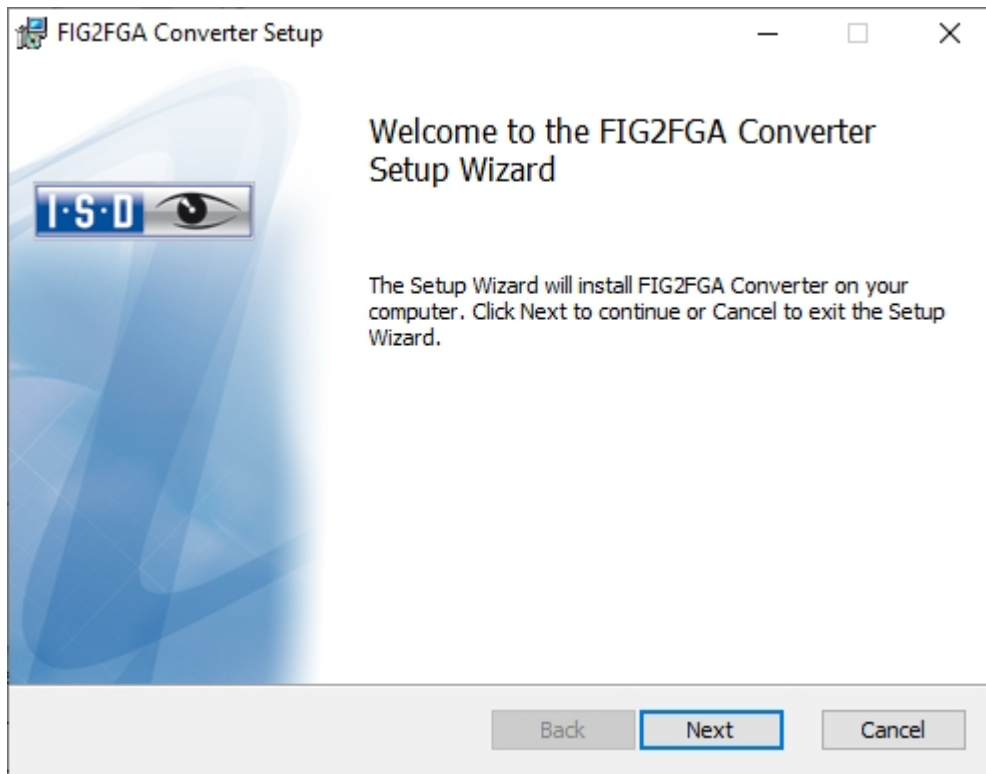
Start Windows to install the FIG-FGA Converter. If Windows has already been opened, close all other applications and start the installation wizard.

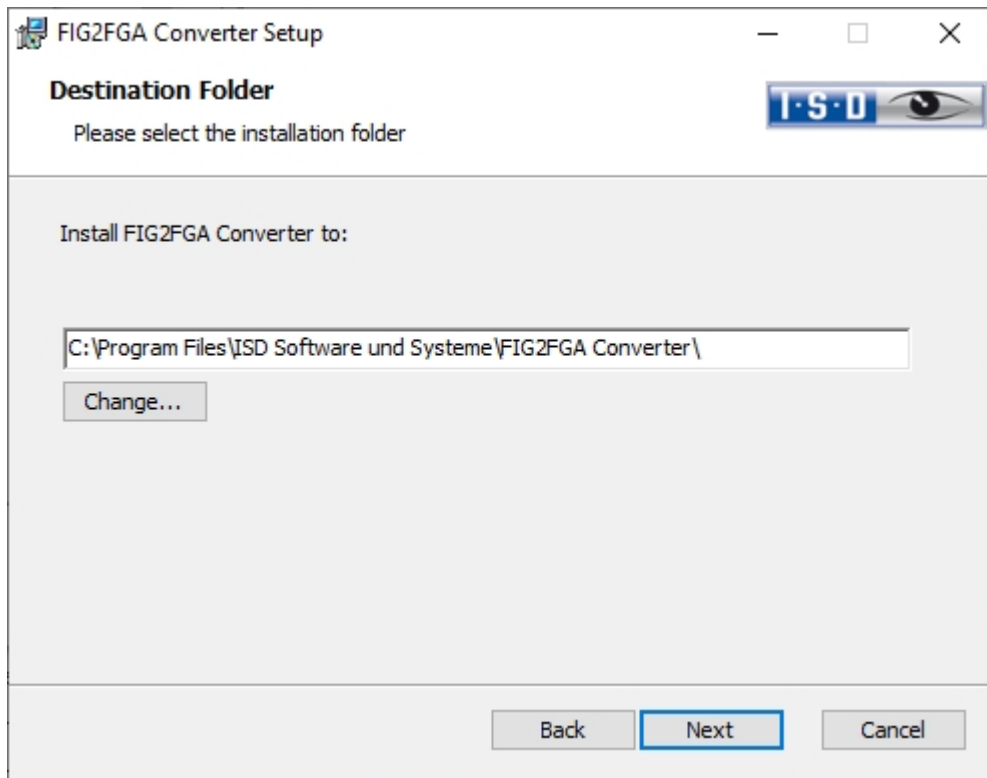
In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

Leave the selection mask of the installation wizard open, so that you can select the desired components one after the other.

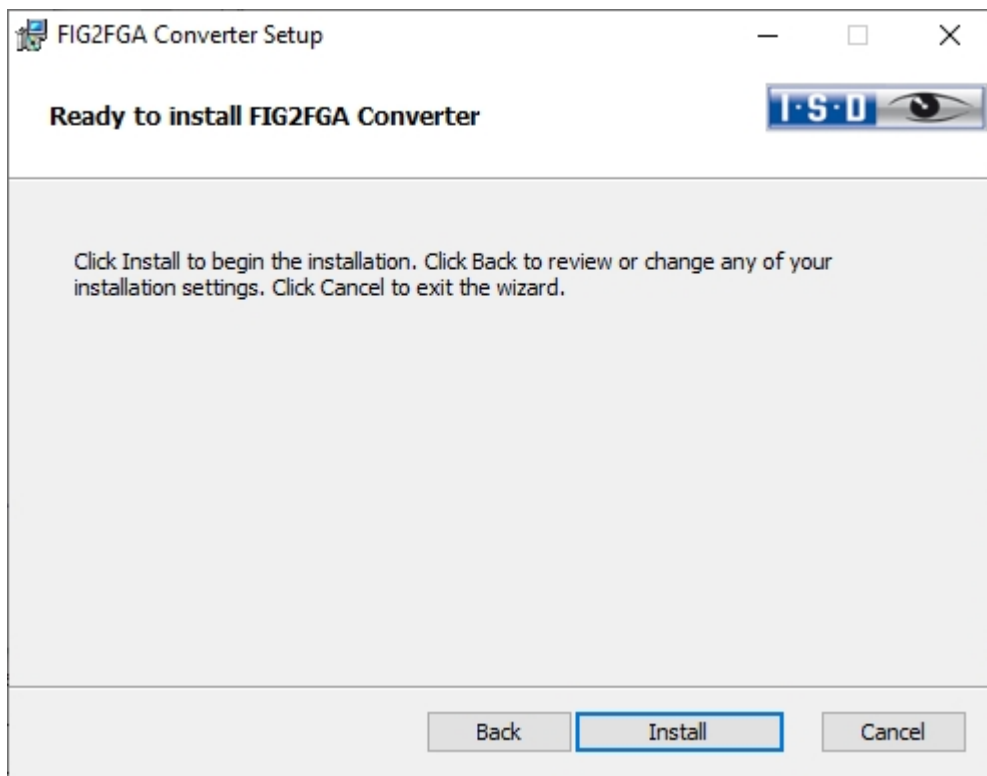


Click on the **FIG-FGA Converter** button.

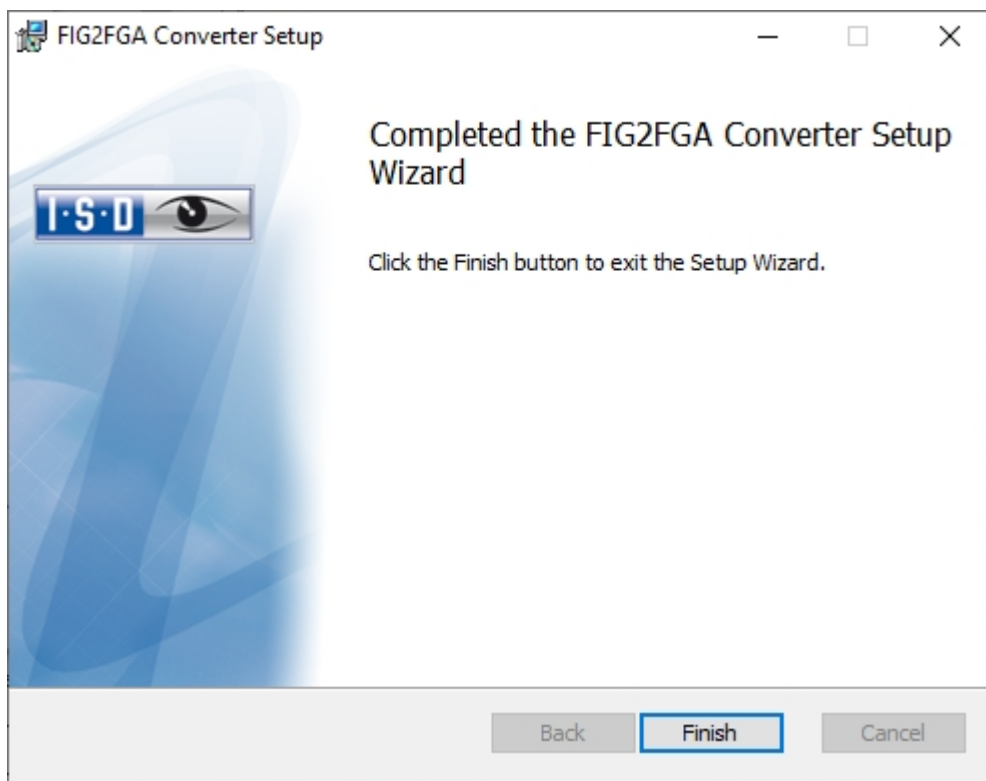




Enter the installation directory for the software.



Click **Install**.



After successful installation the Converter\_FIG\_To\_FGA.exe can be found in the program folder.

## CatalogueMaker

The CatalogueMaker will be called automatically by the installation program when you carry out a new installation.

It specifies which standard series is to be shown in the standard part catalogues (at the moment standard series are available for DIN, ISO, EN, ANSI and JIS). The selection of the standards in the CatalogueMaker influences the display of the standard parts only, not their availability. This will still be controlled by the license selection in the configuration menu.

The existing configuration will be taken over automatically in case of an update; the CatalogueMaker will not be started automatically. If you want to add standards to the catalogues, the program can be called in the ISD program group in the start menu via "Administration".

# Licensing

- General Notes on Licensing
  - ...for Local Licenses
  - ...for Network Licenses
  - ...for Commuter Licenses
- Installing the License Server
- Licensing via Licensing ID (License Activator)
  - AutoRequest Licenses
  - Activate Licenses
  - Deactivate Licenses
  - Trial Licenses
  - Reconstruction of Licenses
  - Notes on the Use of Modbile Computers (Laptops)
  - Floating Lizenzen
- Commuter Licenses
  - Checking Out Commuter Licenses, with Network Connection
  - Checking Out Commuter Licenses, without Network Connection
- License Configuration
- Server Monitor
- Theft of a Workstation

## General Notes on Licensing

HiCAD/HELIOS can be activated via 3 types of licenses:

- Standalone Licenses (Local Licenses)
- Network Licenses
- Commuter Licenses



### Please note:

- A static IP address is required for a correct operation of the License Server.
- If you activated a license while the WLAN card is switched on, this license will only be valid and visible when the WLAN card is switched on.
- In the HiCAD/HELIOS directory DOCU you can find an Online Help for the Licence Manager. You start the Help by calling the LICENSEMANAGER.HTML file in the folder Docu\tools\License\manager.
- In the ISD Wiki at Product Know-how > Whitepaper you can find the PDF document Use case: Checkout Licenses.

## General Information on Local (Workstation-specific) Licenses

If you choose local licensing, the activation will be directly locked to the hardware of the workstation on which your HiCAD and HELIOS Desktop program is installed.

The ISD will send you an E-mail containing the Entitlement ID for local licenses (standalone). This ID will be required for the activation and deactivation of the licenses and software modules. Please keep the Entitlement ID! Without this ID you cannot activate or deactivate any licenses! In case of a defect, no reconstruction of licenses will be possible without the Entitlement ID! After installing HiCAD/HELIOS, you activate the licenses by means of the **License Activator** in the **ISD License Manager**.

## General Information on (Server-controlled) Network Licenses

If you choose network (server-controlled) licensing, the license will be directly locked to the hardware of the server that centrally manages the HiCAD/HELIOS licenses. These licenses can be used on any workstation in your network that is connected to this server.

The ISD will send you an E-mail containing the Entitlement ID. If you have several network servers, e.g. at several locations, you will receive one Entitlement ID for each network server. This ID will be required for the activation and deactivation of the licenses and software modules. Please keep the Entitlement ID! Without this ID you cannot activate or deactivate any licenses! In case of a defect, no reconstruction of licenses will be possible without the Entitlement ID! You activate/deactivate the network licenses by means of the **License Activator** in the **ISD License Manager**.

To be able to use network licenses, a License Server needs to be installed on a computer without HiCAD/HELIOS.

The license server enforces and manages licensing in multi-user environment. It keeps track of all the licenses and handles requests from network users who want to run a HiCAD/HELIOS application, granting authorization to the requesters, or denying requests if all licenses are in use.

The license server must not be installed on the same computer on which an ISD software product (HiCAD/HELIOS) is installed, as both product share system data concerning the licensing information. Formerly, such parallel install-



ations of license servers and ISD products were performed in cases where a customer occasionally wanted to transfer the license to another computer (Remote Commuter License).



### Important:

Installations of license servers and ISD products on the same computer are no longer covered by the warranty. The ISD group advises you strongly not to perform such installations. A static IP address is required for correct operation of the license server.



## General Information on Commuter Licenses

Individual licenses can be checked out from the server and locked to a workstation within or outside the network (so-called “commuter licenses”). This enables you to continue working at a different location, without being connected to the license server (unless your HiCAD/HELiOS installation requires a connection to a database server). For this purpose you define a specific period during which you want the license to be available on a selected workstation. For this period, this license will be blocked on the license server. After expiry of this period, the license will be made available on the license server again. It is also possible to manually return this license to the server before expiry of the defined period, if the workstation is connected to the server. Licenses for one workstation can be checked out for at least one day, with the counting beginning at 1:00 AM on the day following the checkout date.

If you want to replace/exchange your license server, you need to deactivate all licenses first.

## Practical Examples of Network Licensing

- Let us assume that three licenses have been activated on your server. Monday morning (11.00 am) you suddenly need to see a customer for design tasks, and you know that you will still be on-site at the customer’s facility on Tuesday. You therefore check out a license for 24 hours on 11.00 am. This means that you can use this license until Tuesday night, 11.59 pm, from your mobile workplace. After expiration of this period, the license is automatically made available again on the server. If you manage to finish your work on Tuesday at midday, you can go back to your office and return the license to the server somewhat earlier.
- Similar situation as the one described above, with the difference that you are not in your office on Monday, 11.00 am. In such cases you can generate a hardware ID, enabling your colleagues in the office to check out a license for you. This license is sent to you by E-mail and can then be activated. In contrast to the previous

example, this license is exclusively available to you for a fixed period of time and cannot be returned to the server before expiration of this period.

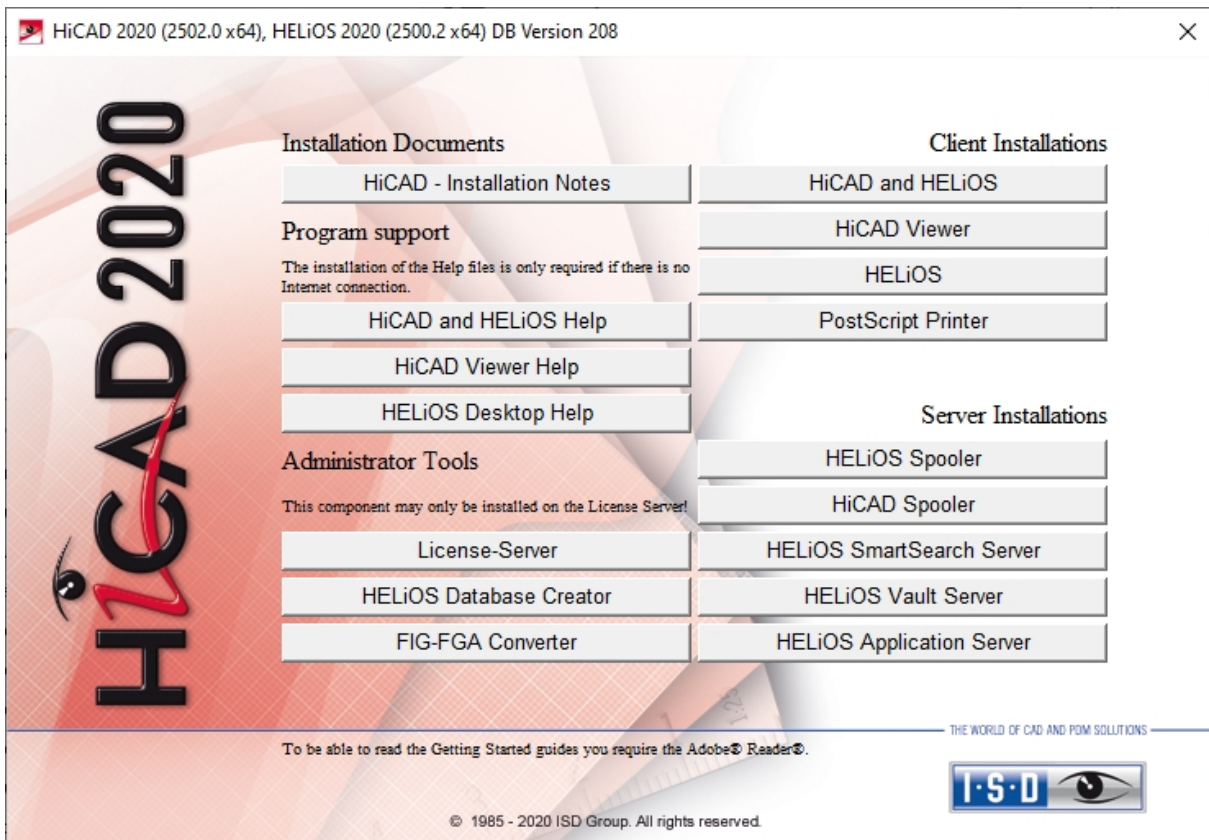
## Installing the License Server

If you want to perform a HiCAD/HELiOS update to Version 2020 and use a license server (i.e. work with network licenses), you require Version 8.6.2 of the License Server. If you have installed an older version, you need to uninstall it before re-installing the License Server.

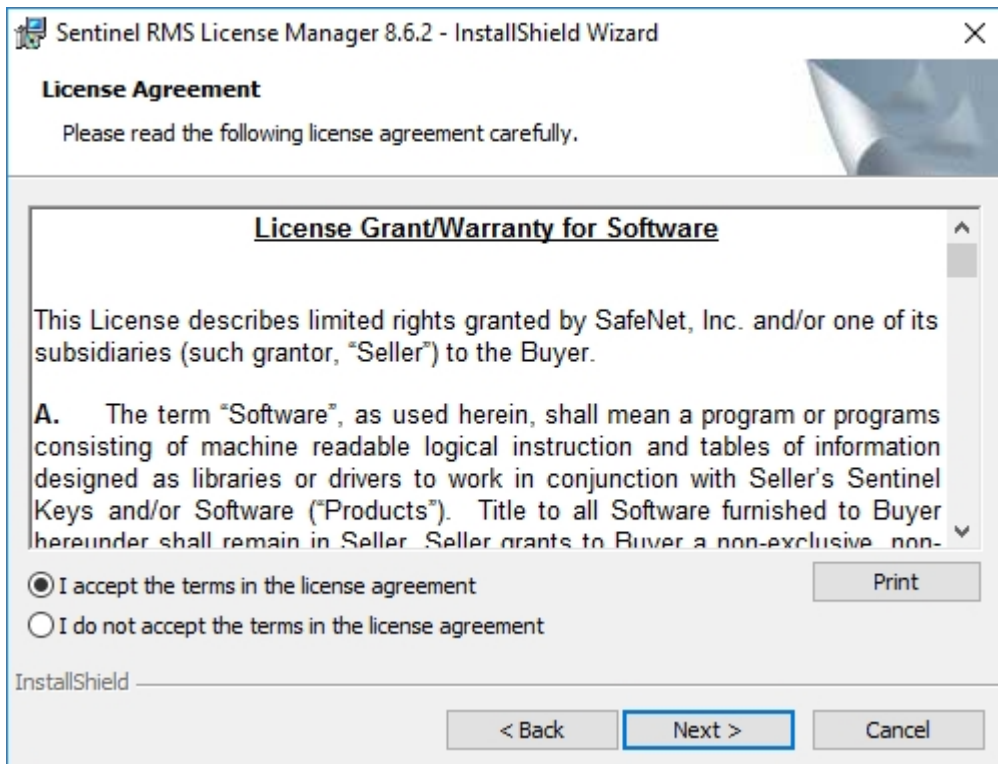
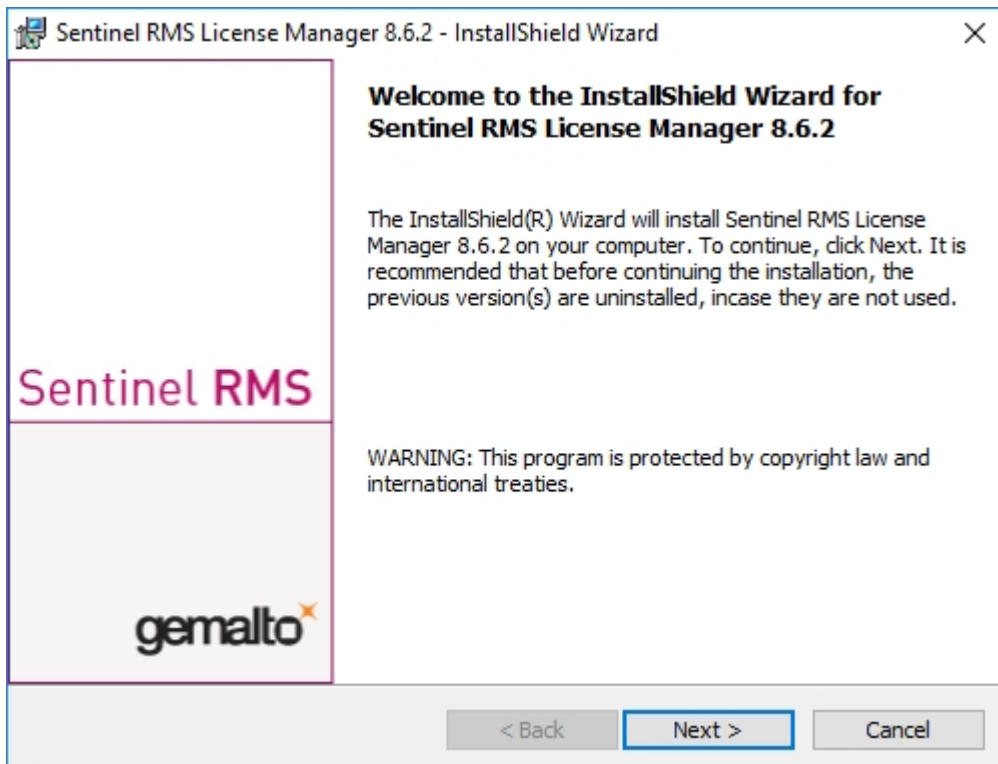
To install the License Server, start Windows. If Windows has already been opened, close all other applications and start the installation wizard.

Click the **Standard Edition** button, which opens a mask with various selection options for software components.

Leave the selection mask open, open, so that you can select the desired components one after the other.



Click on the **License Server** button.



Sentinel RMS License Manager 8.6.2 - InstallShield Wizard

**Customer Information**

Please enter your information.

User Name:  
Doku

Organization:

Install this application for:

Anyone who uses this computer (all users)

Only for me (Doku)


InstallShield

< Back   Next >   Cancel

Sentinel RMS License Manager 8.6.2 - InstallShield Wizard

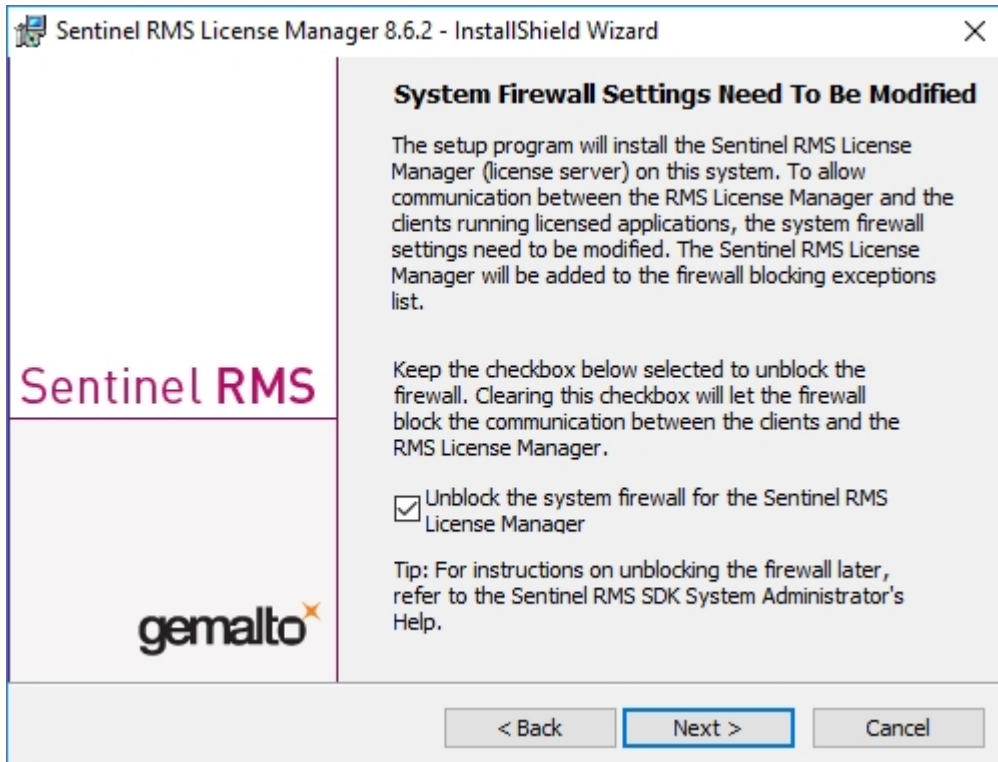
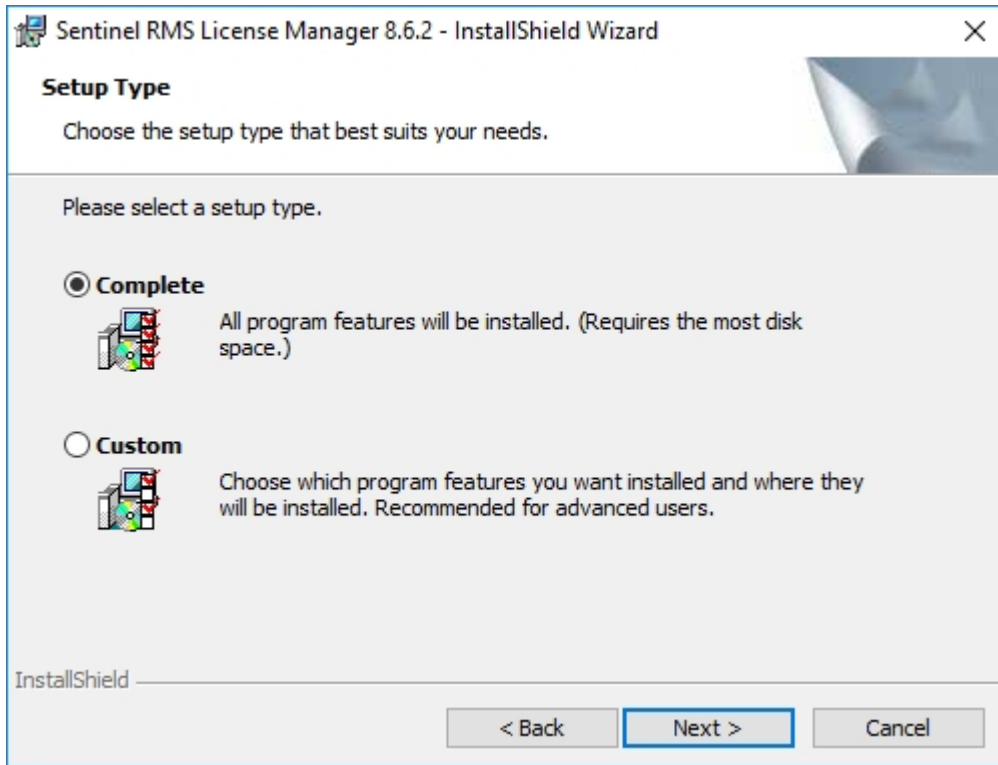
**Destination Folder**

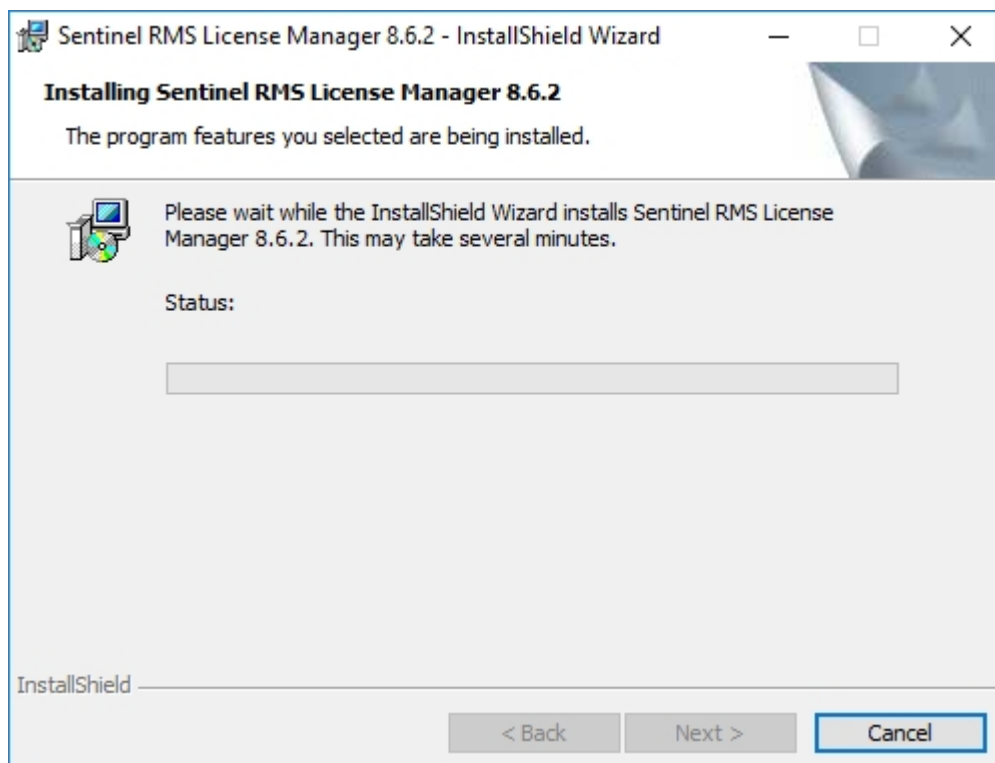
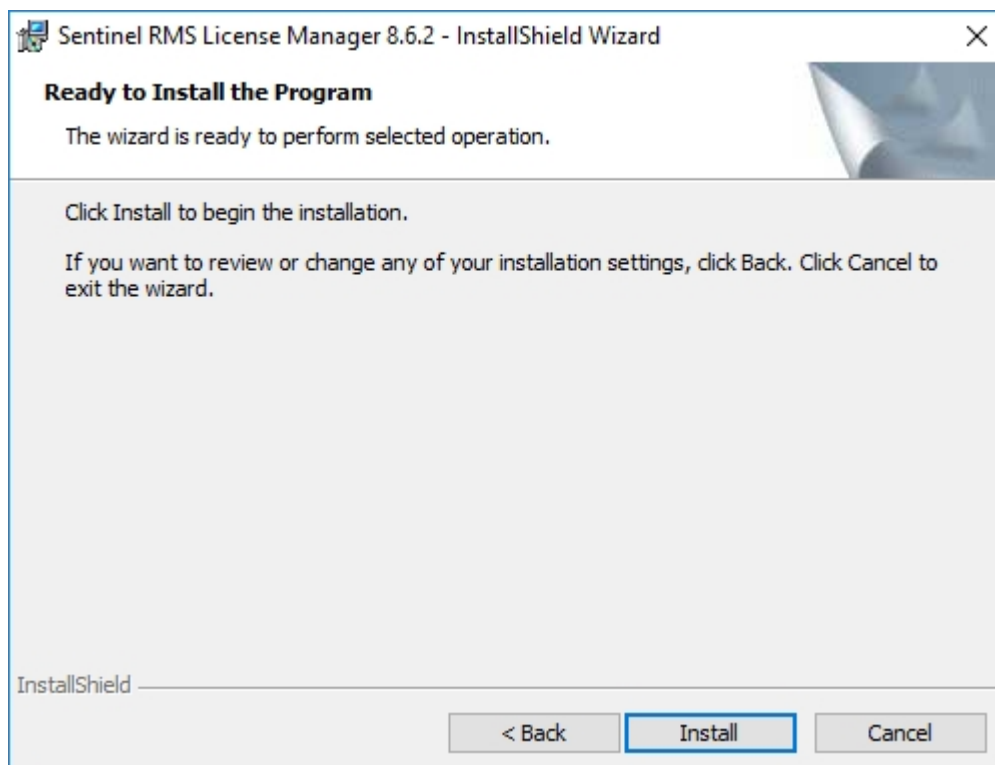
Click Next to continue installing to the following folder,  
or click Change to install to a different folder.

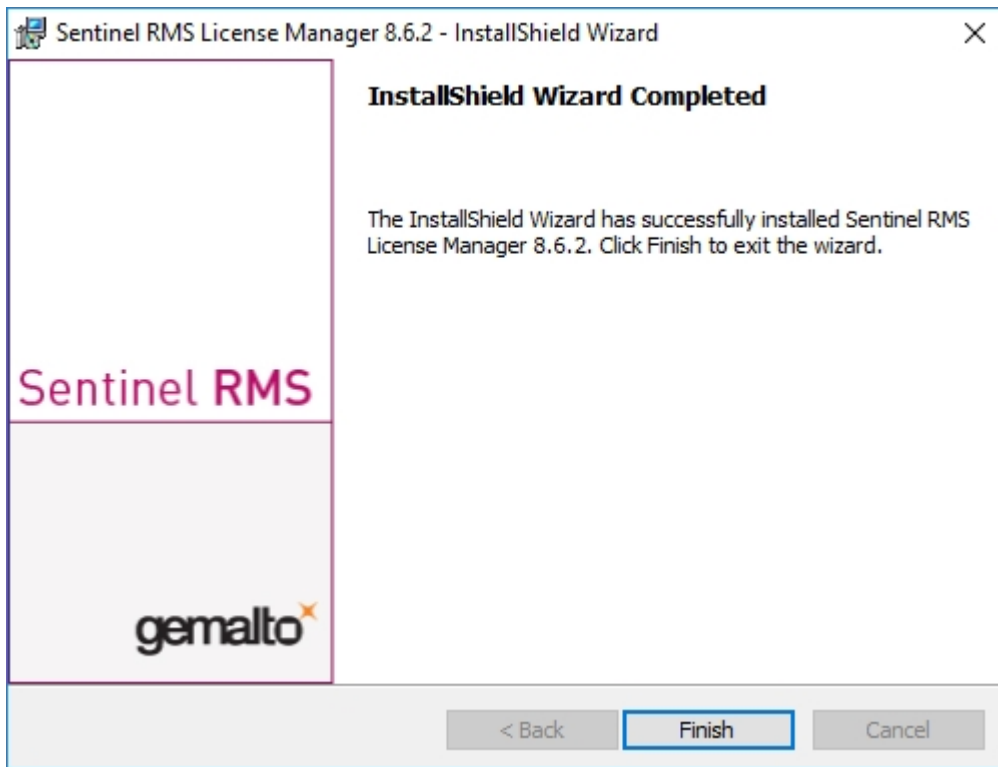
 Install Sentinel RMS License Manager 8.6.2 to:  
C:\Program Files (x86)\Common Files\SafeNet Sentinel\Sentinel  
RMS License Manager\   Change...

InstallShield

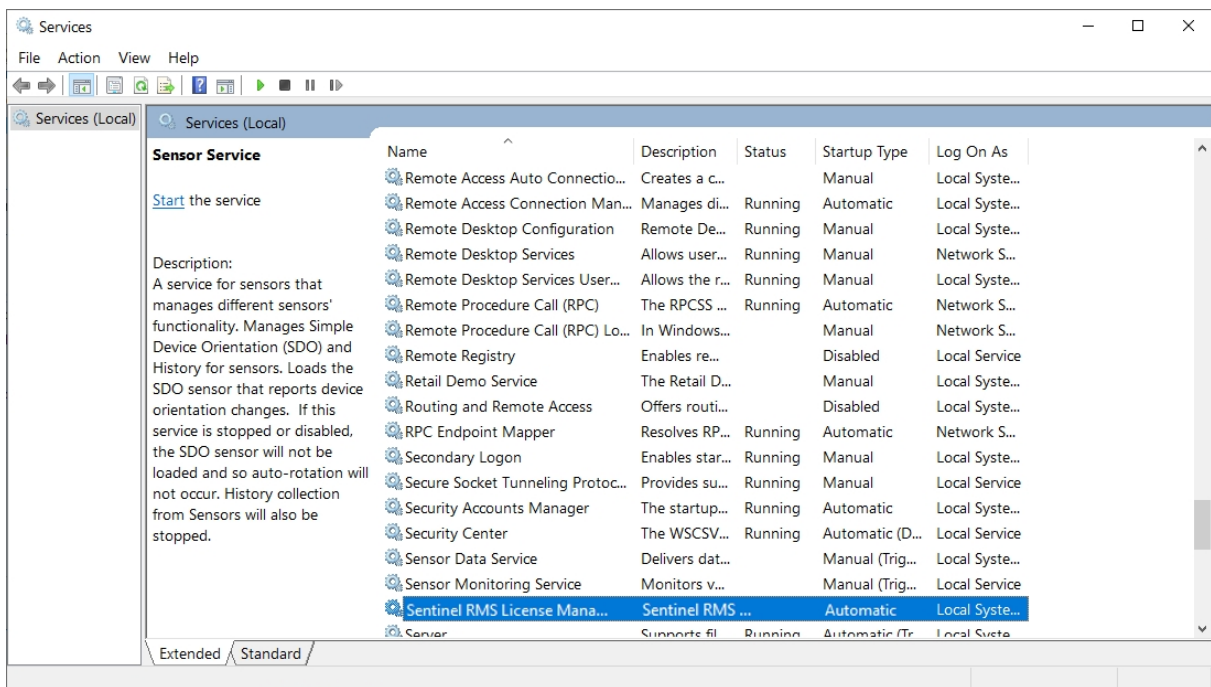
< Back   Next >   Cancel







After successful installation you will find the Server (Sentinel RMS License Manager) under Services. From here you can also start and end the License Server.



**Important:**

To ensure that the HiCAD/HELIOS Client will find the correct License Server, an environment variable LSFORCEHOST should be set on each Client using network licenses. The value HOSTNAME, respectively the IP address of the License Server is assigned to the variable.



## Licensing via Entitlement ID (License Activator)

The ISD License Manager significantly facilitates the communication between the customer and the ISD during licensing.



### Important:

For the activation of HiCAD/HELiOS 2020 the ISD License Manager 4.0 will be required.

## AutoRequest Licenses

When acquiring a HiCAD/HELiOS license, you will obtain one Entitlement ID for local licenses (Standalone) and another one for network licenses (Network). If you have several network servers, e.g. at different locations, you will obtain one Entitlement ID for each network server. These numbers will be required for the activation and deactivation of the licenses and the software modules.

**Von:** activation@isdgroup.de [mailto:activation@isdgroup.de]  
**Gesendet:** Mittwoch, 18. Januar 2020 09:36  
**An:** Musterfrau, Nadine  
**Betreff:** EMS - Entitlement Certificate

Dear musterfrau@isdgroup.de,

Congratulations! An entitlement has been created for you with the following details:

Entitlement Details			
<b>EID:</b>	2ddbc643-343e-4ec4-aed4-7bd5bc44cfe1	<b>Start Date:</b>	01/23/2020
<b>Customer:</b>		<b>End Date:</b>	Never Expires
<b>Contact:</b>	musterfrau@isdgroup.de		

Associated Products					
Product number	Quantity	Remaining quantity	Start Date	End Date	Status
E102SOL1001 2500.0	2	2	01/23/2020	04/16/2021	Enabled
E107BIB1001 2500.0	2	2	01/23/2020	04/16/2021	Enabled
E130SMB1001 2500.0	2	2	01/23/2020	04/16/2021	Enabled
MasterLic 2500.0	2	2	01/23/2020	04/16/2021	Enabled

Now, follow the steps given below to activate and manage your entitlement:

1. Start ISD License Manager.
2. Change to tab "License Activator"
3. Log on using the EID, registered E-Mail and Password (ISD download area password).
4. Check licenses to activate.
5. Click on Activate button.

For further assistance, contact us using the following details:

Contact No. - Tel. +49-(0)231-9793-166

Email - support@isdgroup.com

Sincerely,

ISD Software und Systeme GmbH Team

© 2020 SD Software und Systeme GmbH, All Rights Reserved



### Important:

Please keep the Entitlement ID! Without this number you cannot activate or deactivate licenses. In case of a system crash a reconstruction of the licenses cannot take place without the Entitlement ID.

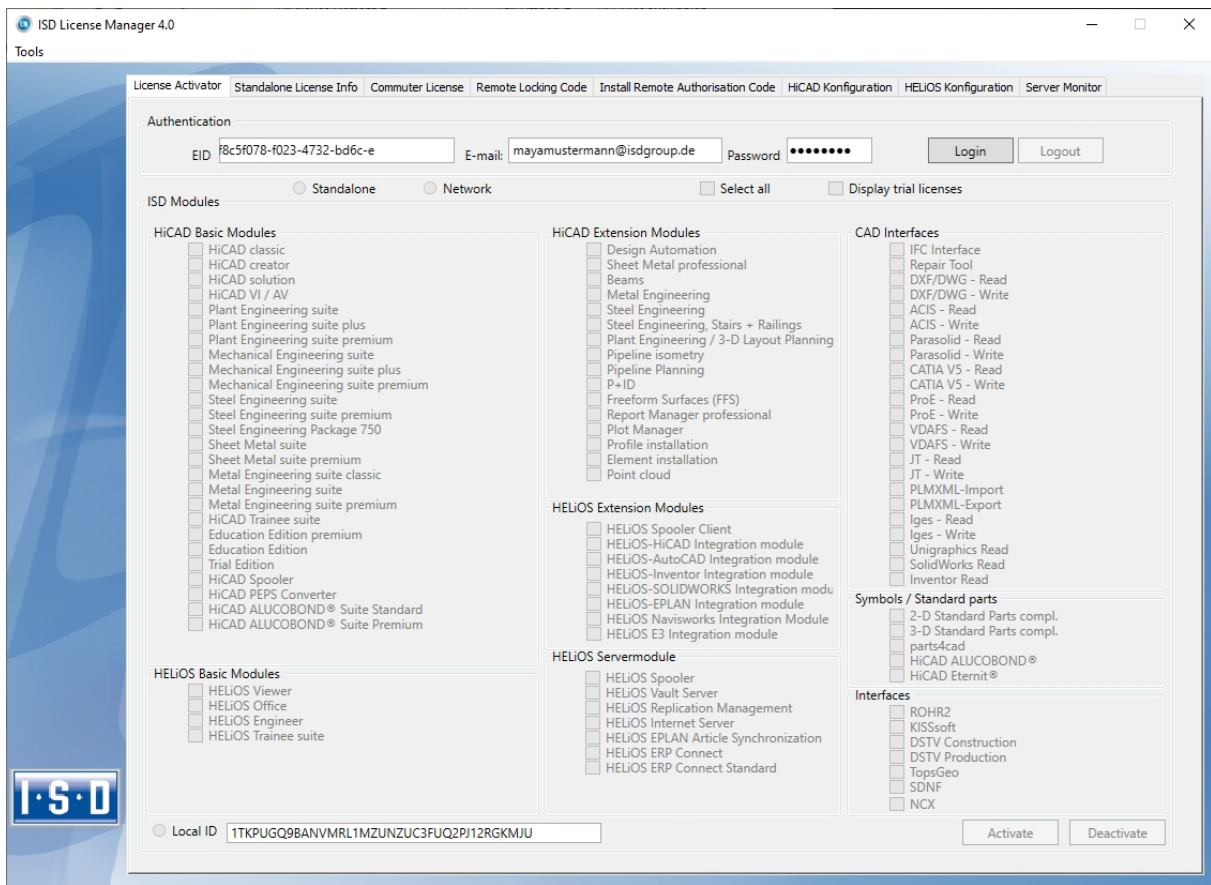
After installing HiCAD/HELiOS you can find the program in the Windows Start menu at **ISD Software und Systeme > Administration**. Please note that for the execution of some functions, administrator rights are required.

The range of functions of the **ISD License Manager** depends on the activation of the License Administration Tools option. The information about this setting is entered in the Registry and can also be changed there subsequently if desired (please contact the Hotline).



**Important:**

To activate/deactivate Network Licenses, always start the ISD License Manager via the Windows Start menu: Select **Start > All programs > ISD Software und Systeme GmbH > Administration**. To avoid errors when activating/deactivating licenses, perform an update of the new **ISD License Manager** and/or the **License Administration Tools** beforehand.



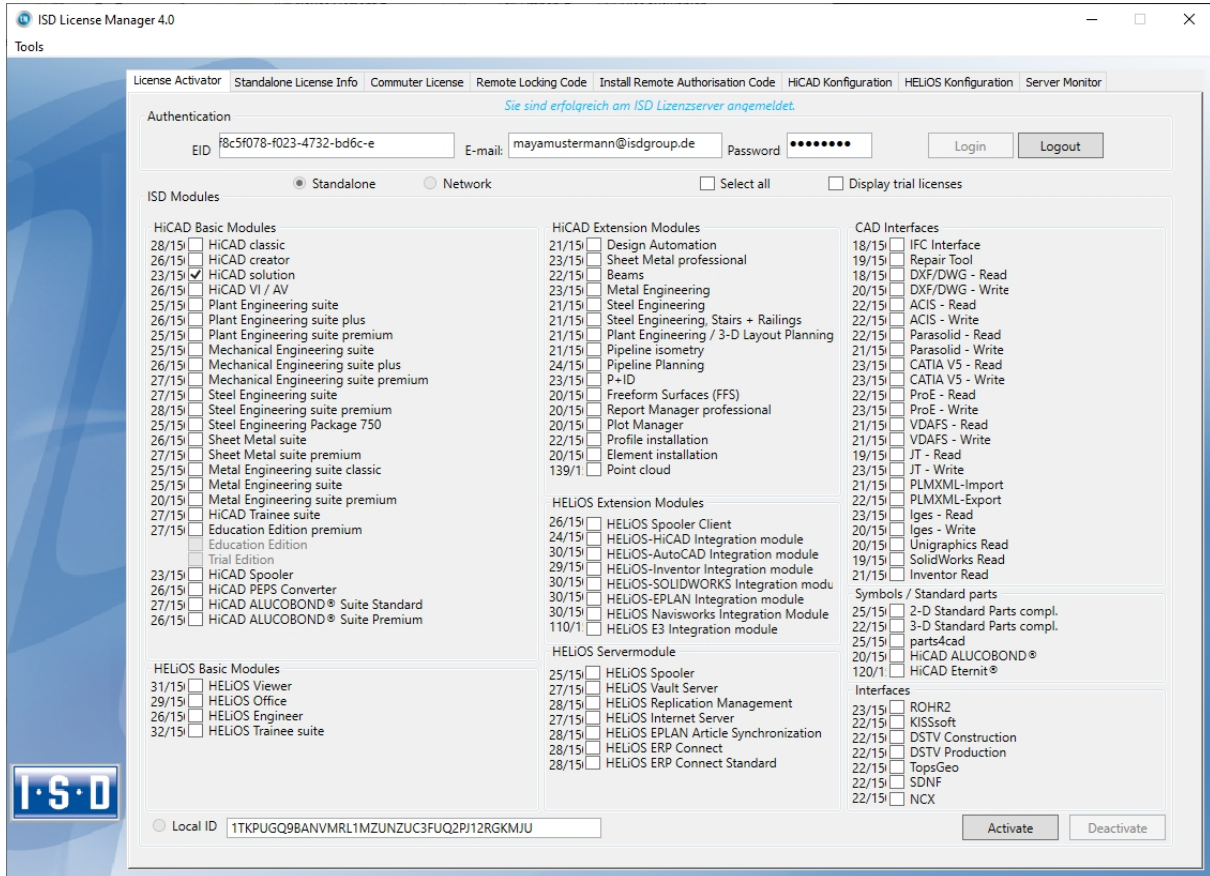
Activate the **License Activator** tab and enter the **Entitlement ID**, your **E-mail address** and your **Password**. New customers obtain their password from the ISD Hotline. With this password you can also access the Download Area.

After entering the data, click **Login**. The ISD License Manager connects to the ISD License Server and the acquired licenses will be displayed.

This process may take several minutes. You can then activate the licenses.

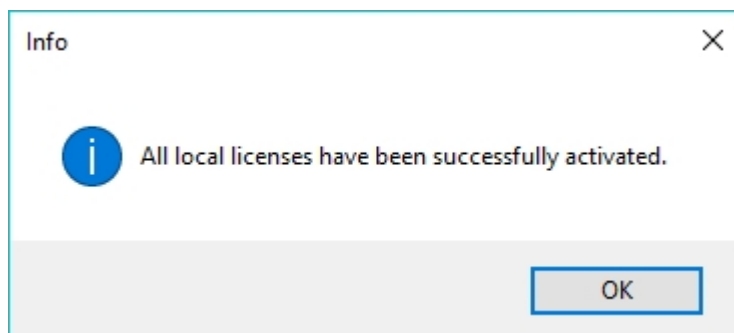
## Activate Licenses

After successful Login the number of available licenses and the number of acquired licenses are indicated next to each module.



Select the modules to be activated and click **Activate** to start the activation. For Server Licenses the modules are already pre-selected.

After successful activation a message showing you that all licenses have been successfully activated will be displayed:



You can then log out and work with the HiCAD/HELiOS modules.

In addition, you will receive an E-mail informing you about the deactivated modules.

For Network Licenses, all modules will always be activated or deactivated (for further information about the operation of the License Manager, please read the Online Help for the License Manager).

## Deactivate Licenses

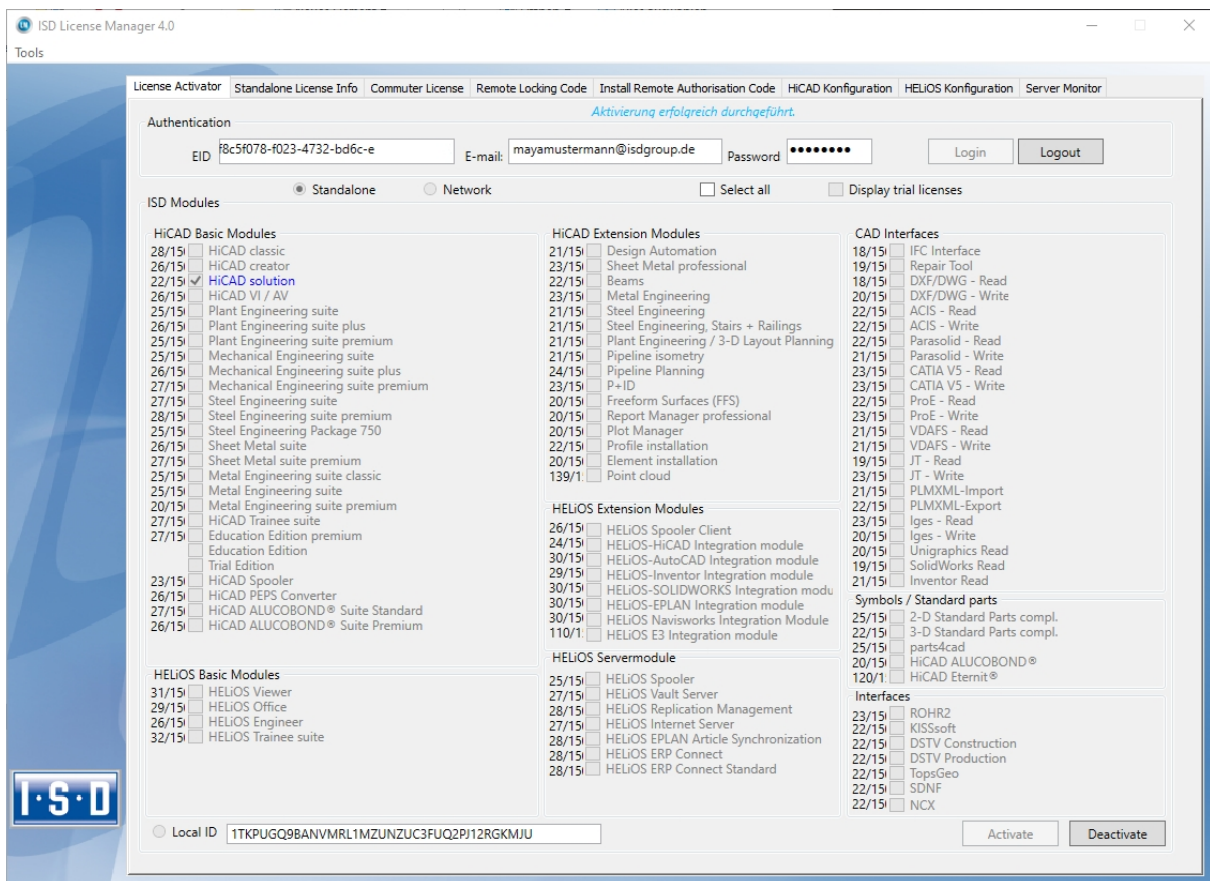
A deactivation of licenses for modules will be required in the following situations:

- Exchange of hardware or changing of hard disk partitioning
- Update of the operating system (e.g. from Windows 7 to Windows 10)
- For updates within one version no deactivation will be required
- Transfer of local modules from one workstation to another
- Acquisition of further modules, or return of hired licenses
- Switch from local licenses to network licenses

Please note the following: All workstations with modules having the same Entitlement ID need to be deactivated completely before a redistribution of the module licenses can take place.

Close all HiCAD/HELiOS applications before deactivating local licenses or logging onto the License Manager.

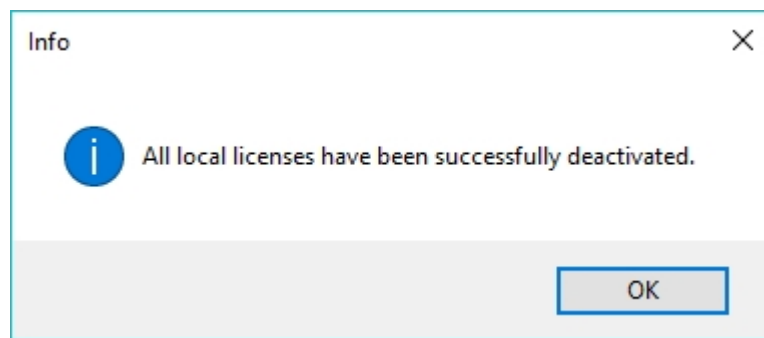
After starting the ISD License Manager the activated modules will be highlighted in a different colour.



Click the **Deactivate** button to revoke the activation of the modules.

A selection is not possible, as you need to deactivate all modules, no matter whether local licenses or network licenses. The deactivation process must not be disrupted, e.g. by a logout or the closing of ISD License Manager!

After successful deactivation the following message will be displayed.



## Trial Licenses

If you select **Display trial licenses** after login, you will be also shown, besides all trial licenses with a limited period of validity, all purchasable licenses which are not simultaneously available as trial licenses.


## Reconstruction of Licenses

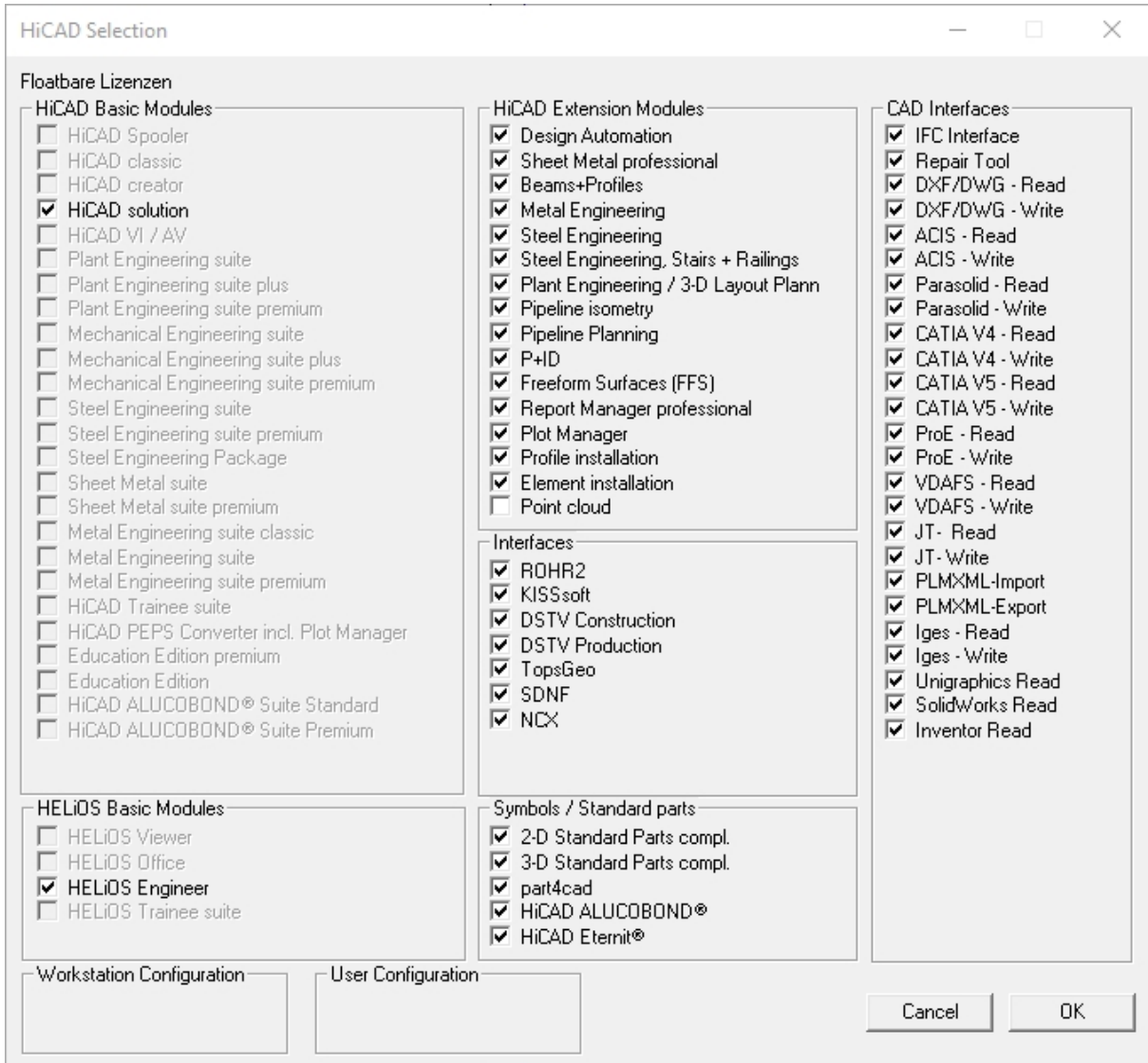
As all licenses are stored on the ISD Server, you can, in case of an interrupted connection or an accidental deletion of licenses, restore all licenses by logging in with your Entitlement ID. The restoring will only function if the hardware was not changed (see Deactivate Licenses).

## Notes on the Use of Mobile Computers (Laptops)

If you use a computer with WLAN card, Please make sure that the WLAN card is either always switched on, or always switched off.

## Floating Licenses

If you have acquired a HiCAD Extension Module with the property **Floating-able at runtime**, you can activate/deactivate them during the current HiCAD session. To do this, click on the HiCAD nach dem **Help**  icon on the top right of the HiCAD screen and choose the option **Floating Licenses**. The HiCAD module selection window will be displayed:



If one Extension Module is (de)activated, the Extension Modules that are prerequisites for this module will also be (de)activated (if they are also floating-able at runtime).

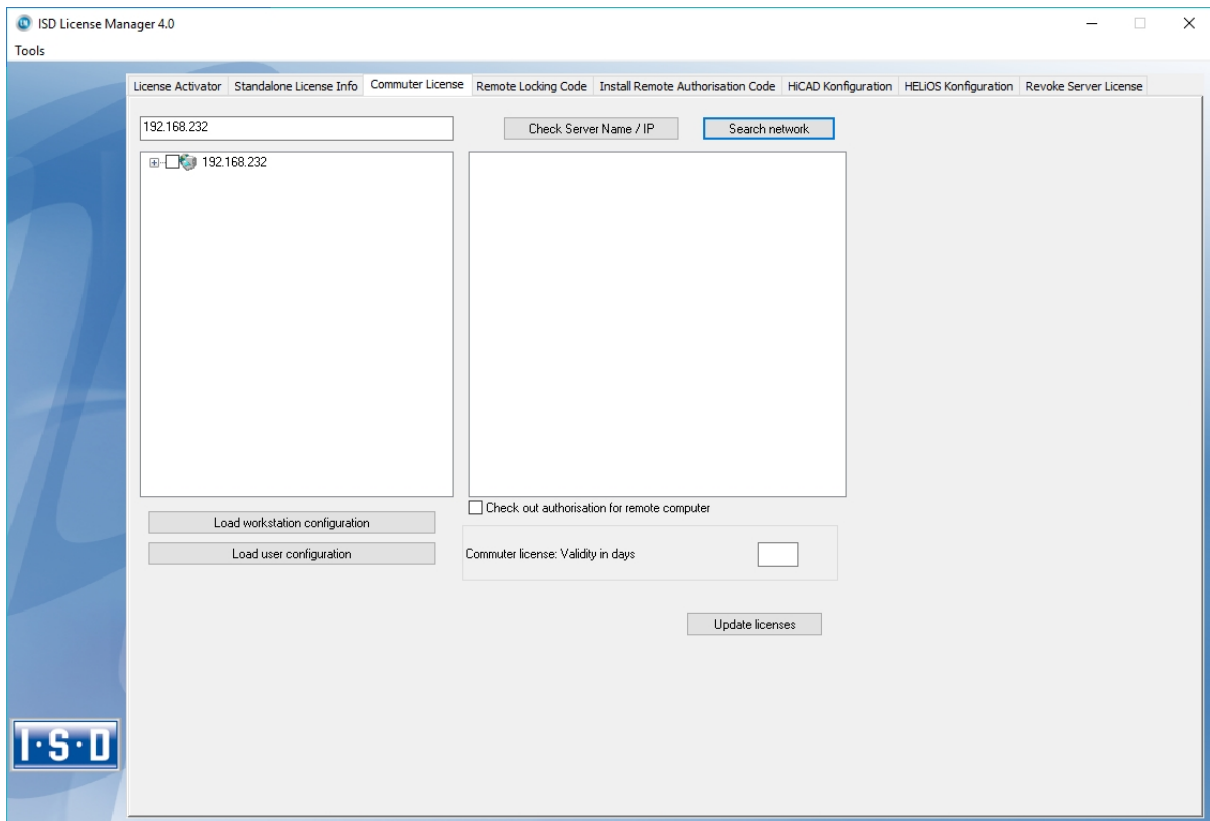
## Commuter Licenses

Commuter licenses enable you to use network licenses even if the workstation is not connected to the Server. There are two ways of receiving commuter licenses:

- Checking Out Commuter Licenses, with Network Connection
- Checking Out Commuter Licenses, without Network Connection

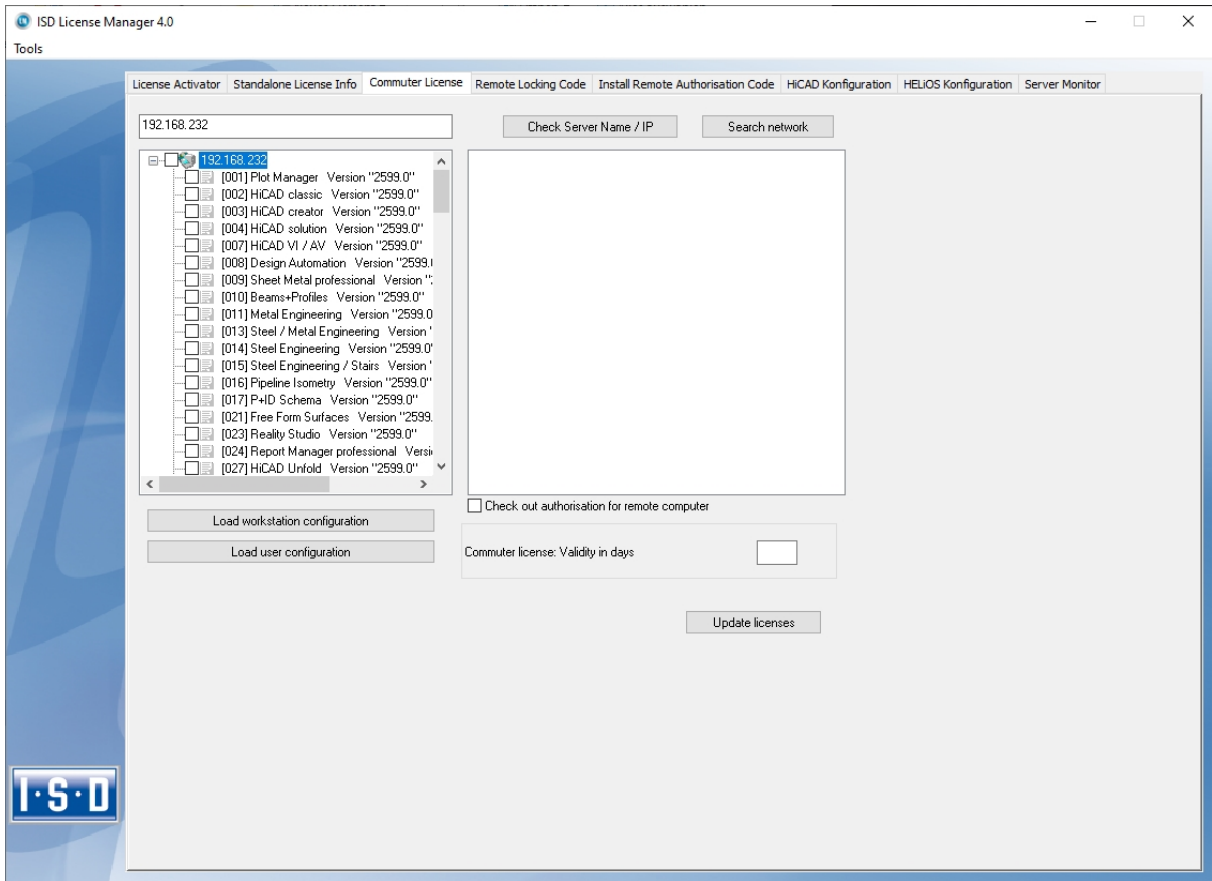
### Checking Out Commuter Licenses, with Network Connection

Start the **ISD License Manager** (while a connection to the Server still exists). Switch to the **Commuter License** tab.

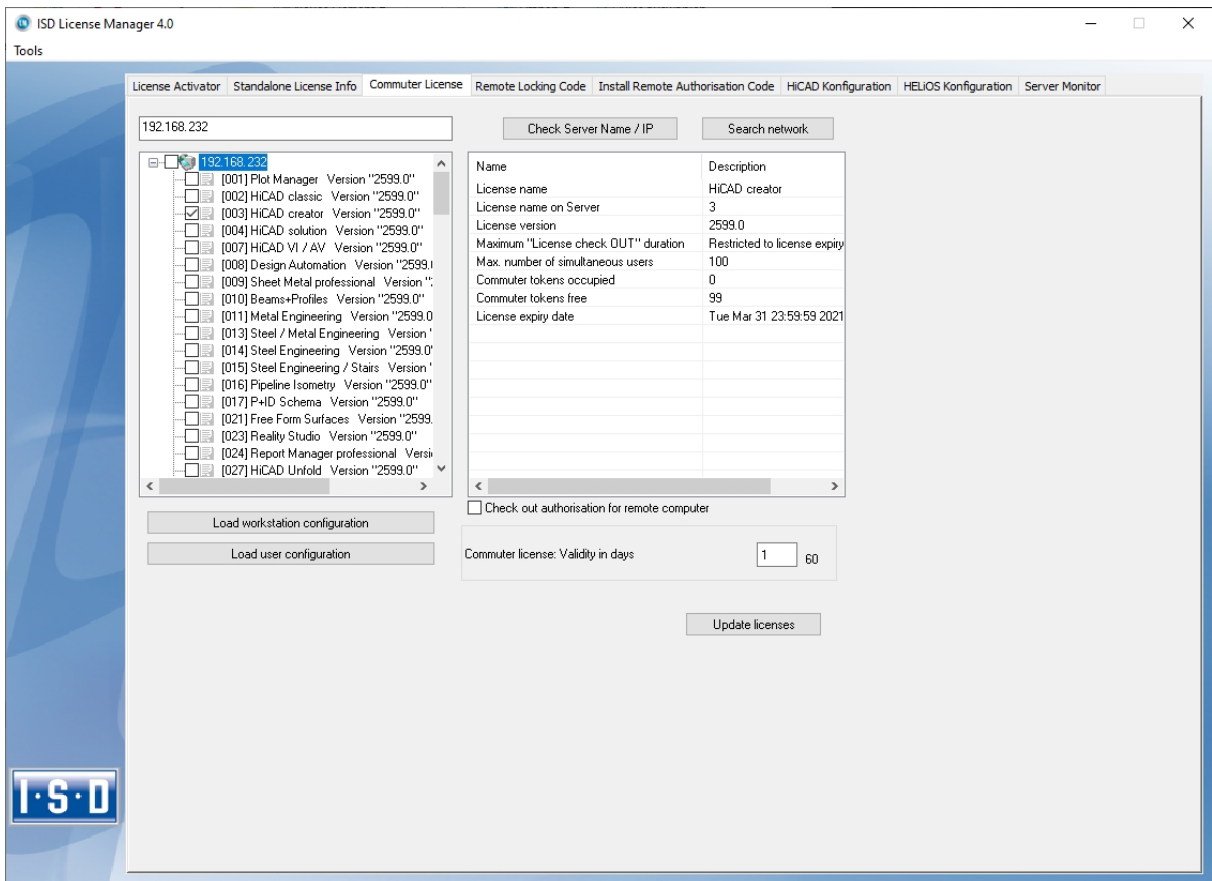


If you have set the system environment variable LSFORCEHOST, the entered License Server will be displayed as the preselected server upon start. Use the **Search network** button to automatically search for License Servers.

Expand the tree structure of the found Server by a click on the “+”-sign. The result looks as follows:



Select the required licenses by activating the corresponding checkboxes on the left hand side.



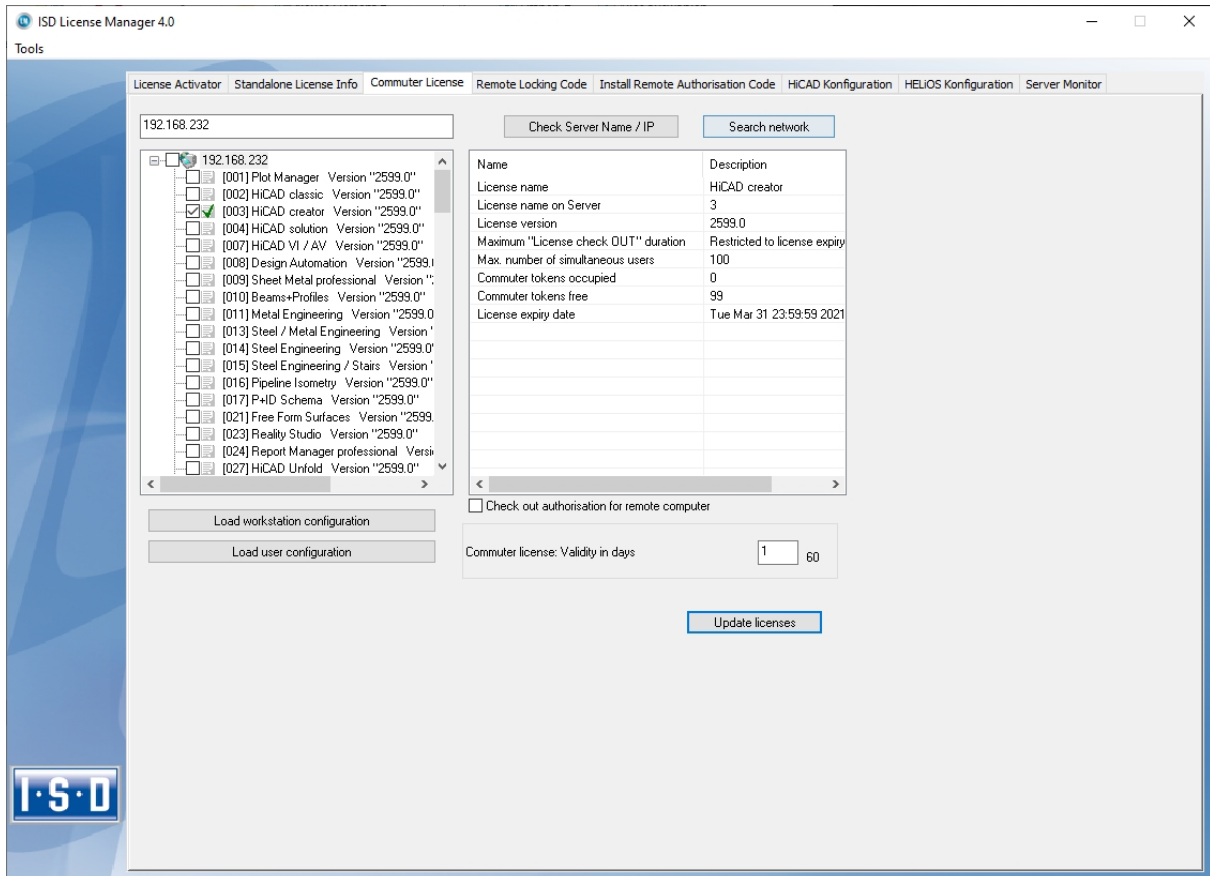


On the right hand side, information on the selected license is displayed.

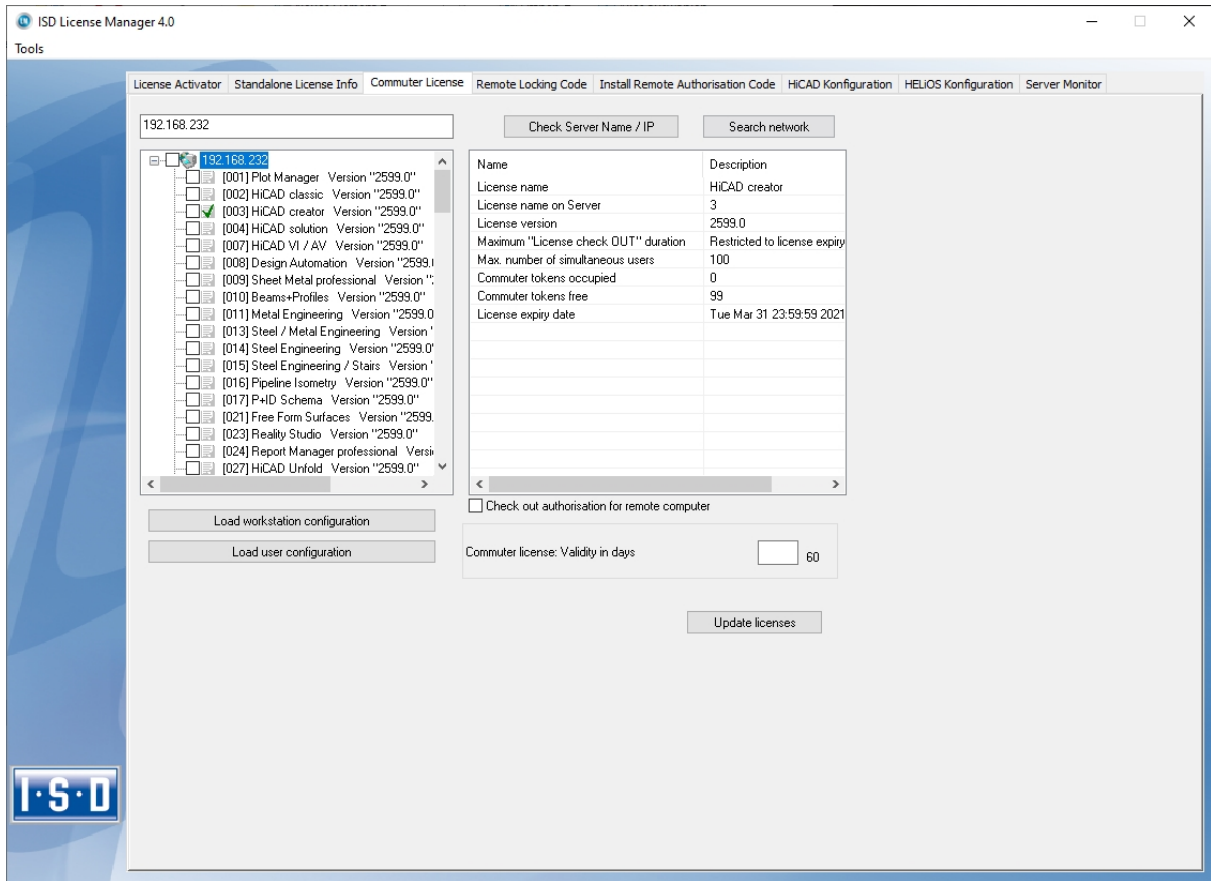
In the **Commuter license: Validity in days** field, you enter the number of days that you want the commuter licenses to remain checked out from the Server. The maximum number of days is 60. By default (or if a "0" is entered), the value is set to 1.

For reasons of safety you should check out the licenses only for the required period! If a commuter license is lost, e.g. because of theft or a defect of the client computer, the license on the Server cannot be used any more before expiry of this date.

After entering the expiry date for the commuter licenses, click the **Update licenses** button. The Commuter licenses are checked out from the Server.



All selected licenses are now checked out from the Server and you possess all rights on your computer for the specified validity period for the commuter licenses. This means that you are enabled to work network-independent. The checked out licenses are no longer available to the other computers on the network.



You can however also return the commuter licenses before their expiry date. To do this, you need to connect to the Server, deactivate the checkboxes on the left and click the **Update licenses** button. All licenses are now made available on the Server and locked on your computer, i.e. you can now only use HiCAD/HELIOS if there is a connection to the License Server. The licenses made available again can now also be used from other workstations.

### Checking Out Commuter Licenses, without Network Connection

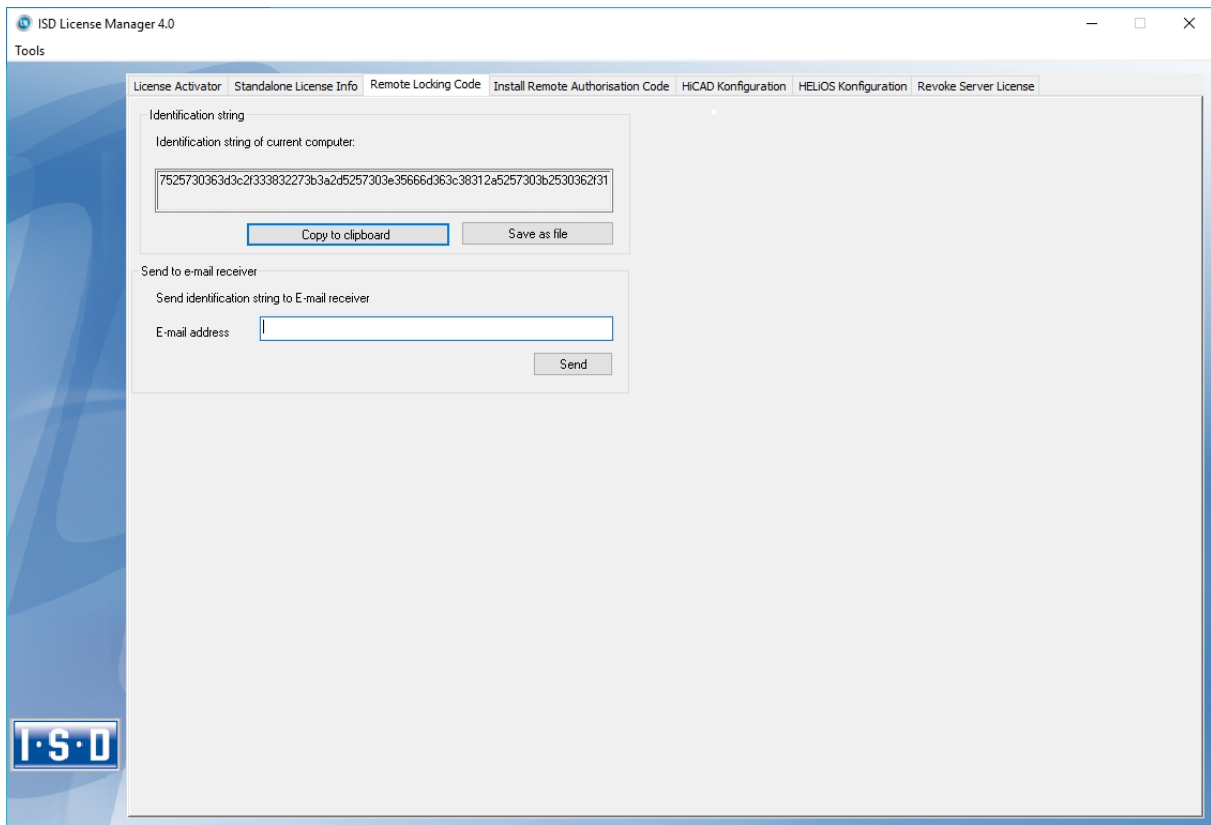
Commuter licenses can also be drawn from the License Server without an existing network connection. For this **Administrator rights** are required.

Commuter licenses checked out in this way cannot be returned to the License Server! This means that the commuter licenses that have been checked out from the Server are only (automatically) made available again after their expiry date.

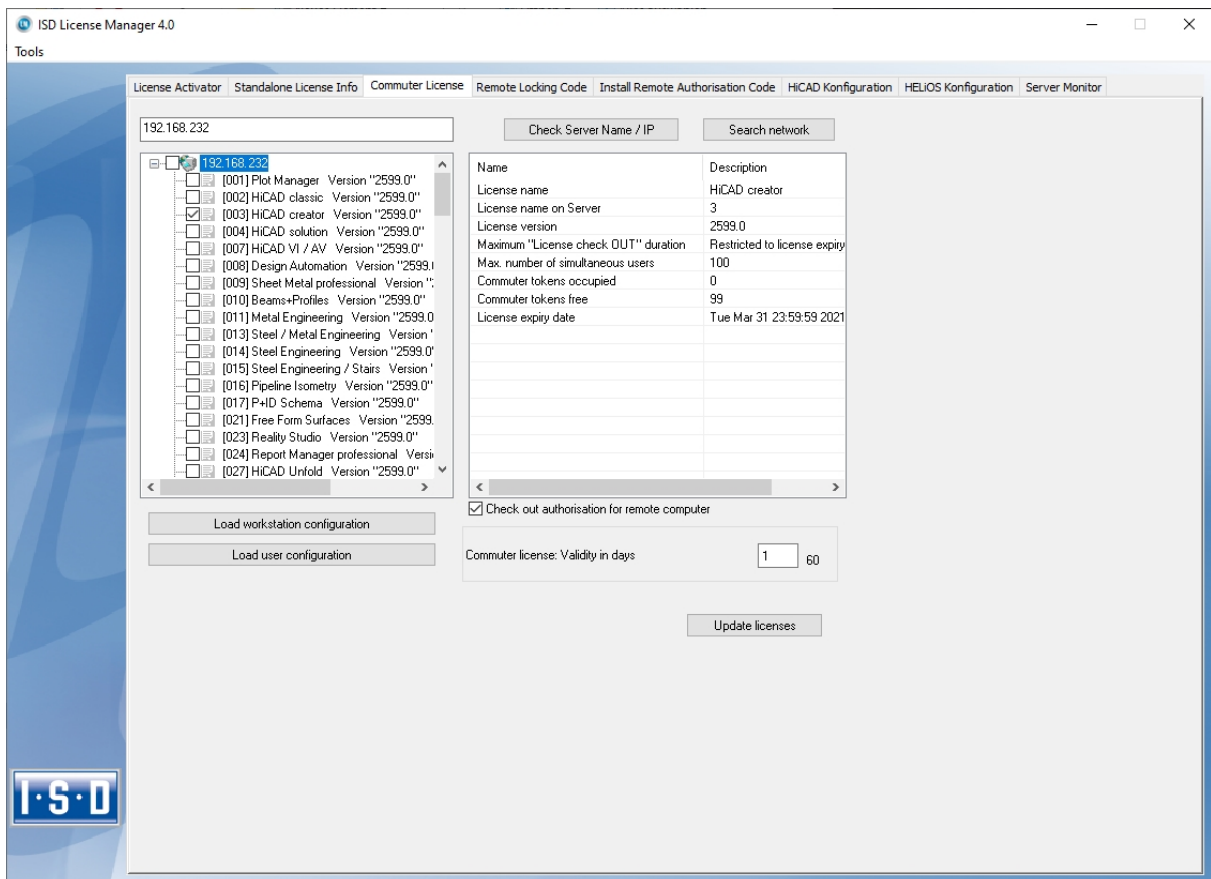
Several steps are required for checking out without network connection - by the Administrator having a network connection to the License Server, as well as by the Client (that is, your laptop) having no network connection to the License Server.

As long as commuter licenses are checked out in this way, it is not possible to update the network licenses on the server. The same applies when buying new modules/licenses and changing the configuration.

The Client starts the **ISD License Manager** tool, switches to the **Remote Locking Code** tab.

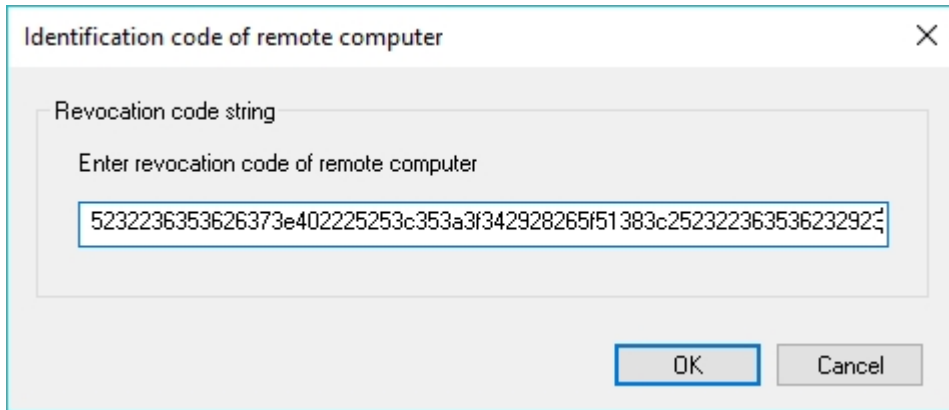


Then, the Client sends the generated character set to the Administrator (via E-mail or over the phone).  
 The Administrator starts the **ISD License Manager** and switches to the **Commuter License** tab.

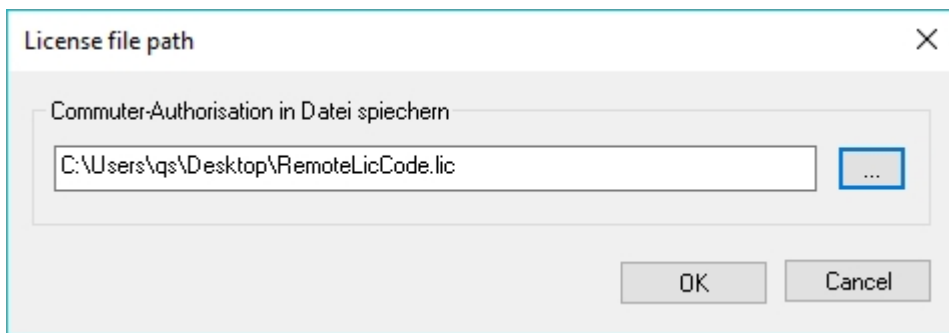


The License Server will be selected, and the required licenses (modules) are activated in the left window. In the **Commuter license: Validity in days** field, you enter the number of days that you want the commuter licenses to remain checked out from the Server. The maximum number of days is 60. By default (or if a "0" is entered), the value is set to 1. To checkout a remote commuter license the administrator now needs to activate the **Check out authorisation for remote computer** checkbox . Administrator rights are required for this.

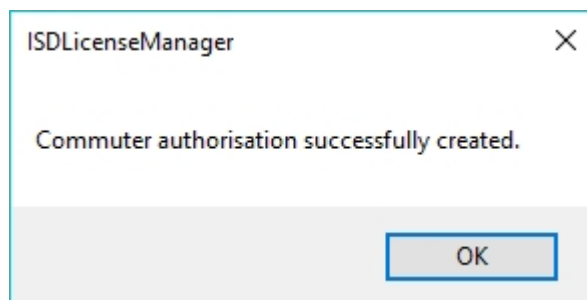
A click on the **Update licenses** button opens a new dialogue window, in which the administrator enters the character set received from the Client



After selecting **OK**, another dialogue opens.

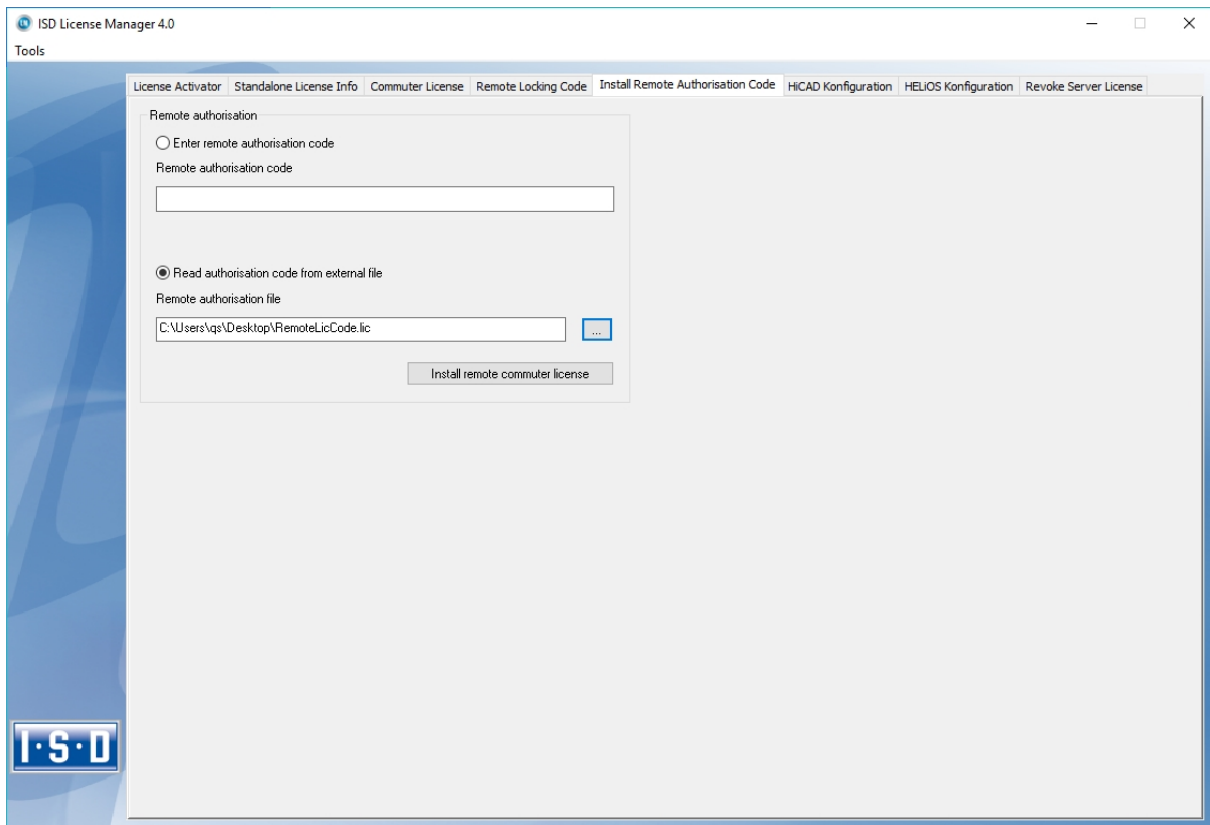


Here the Administrator enters the target path and the file name for the licenses to be swapped out. Make sure that a unique file name is used, for example, by including in the file name the host name of the remote computer and the expiry date.

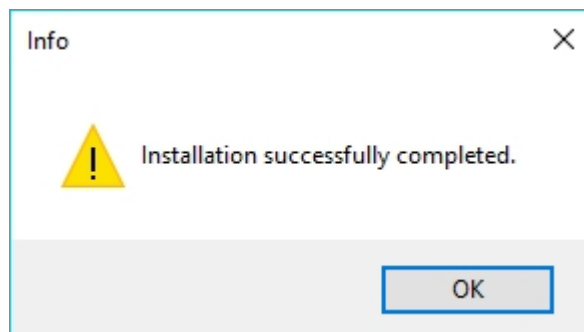


Click **OK** to check out the commuter licenses from the License Server and swap them out to a file, e.g. RemoteLicCode.lic.

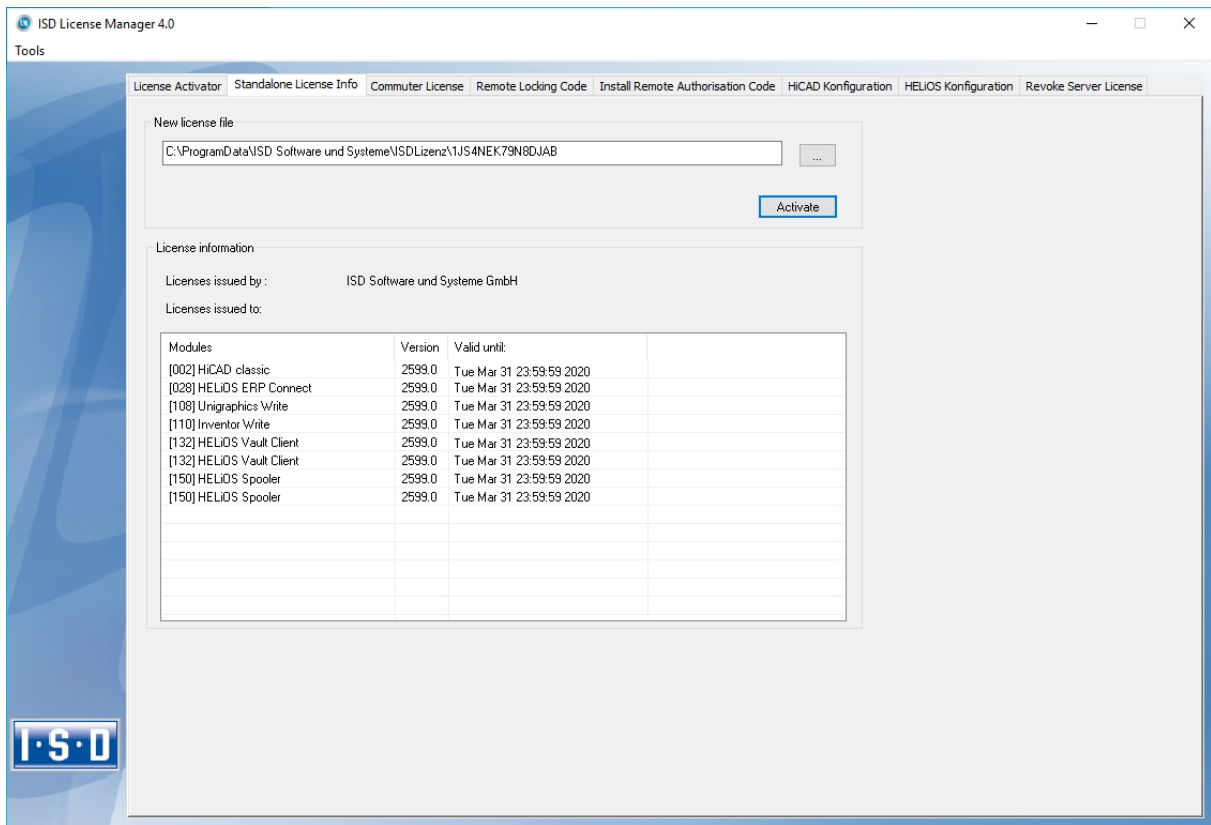
After receiving the file with the commuter licenses, the Client starts the **ISD License Manager** again and activates the **Install Remote Authorisation Code** tab.



Now the Client can install the received commuter licenses directly via file selection or via copying of the file contents. Click the **Install Remote Commuter License** button to install the Commuter Licenses on the Client.



After successful installation, the Client must switch to the **Standalone License Info** tab.

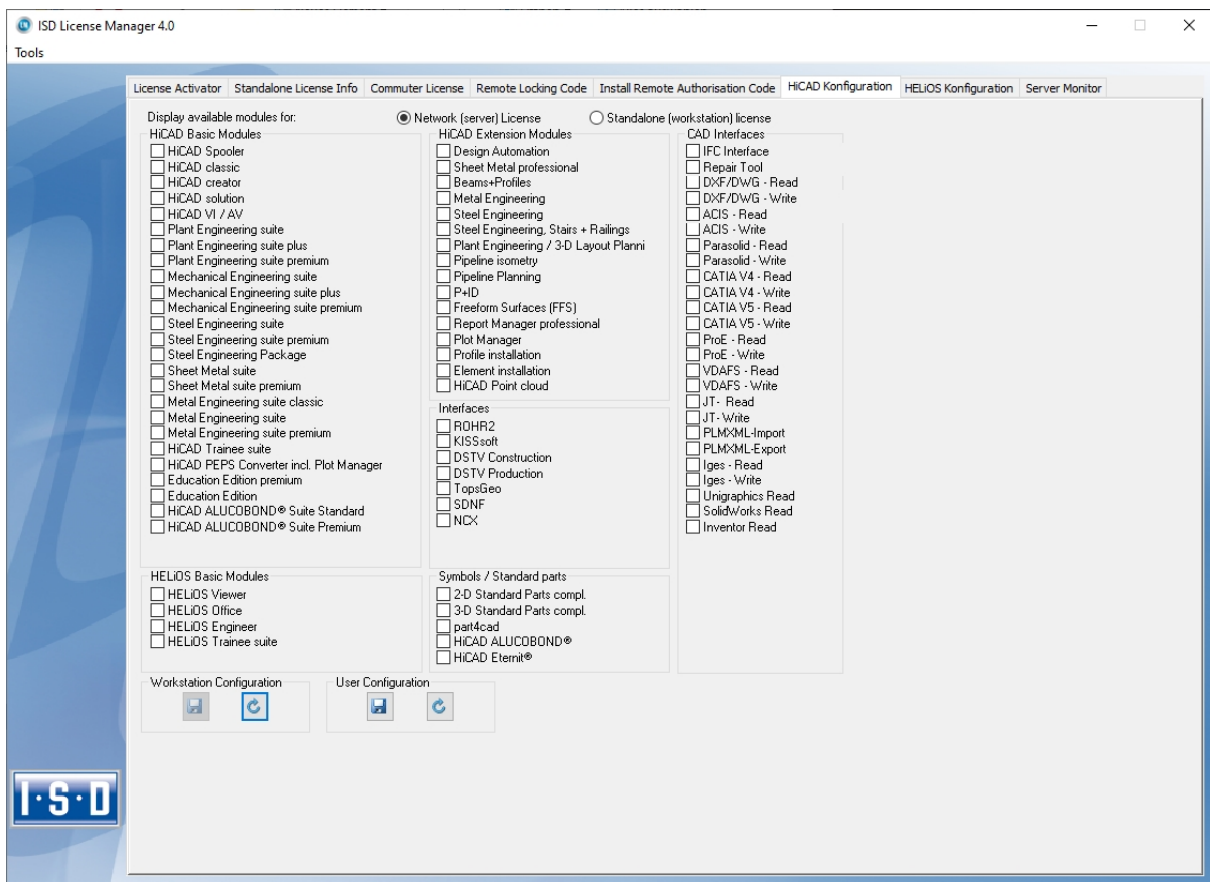


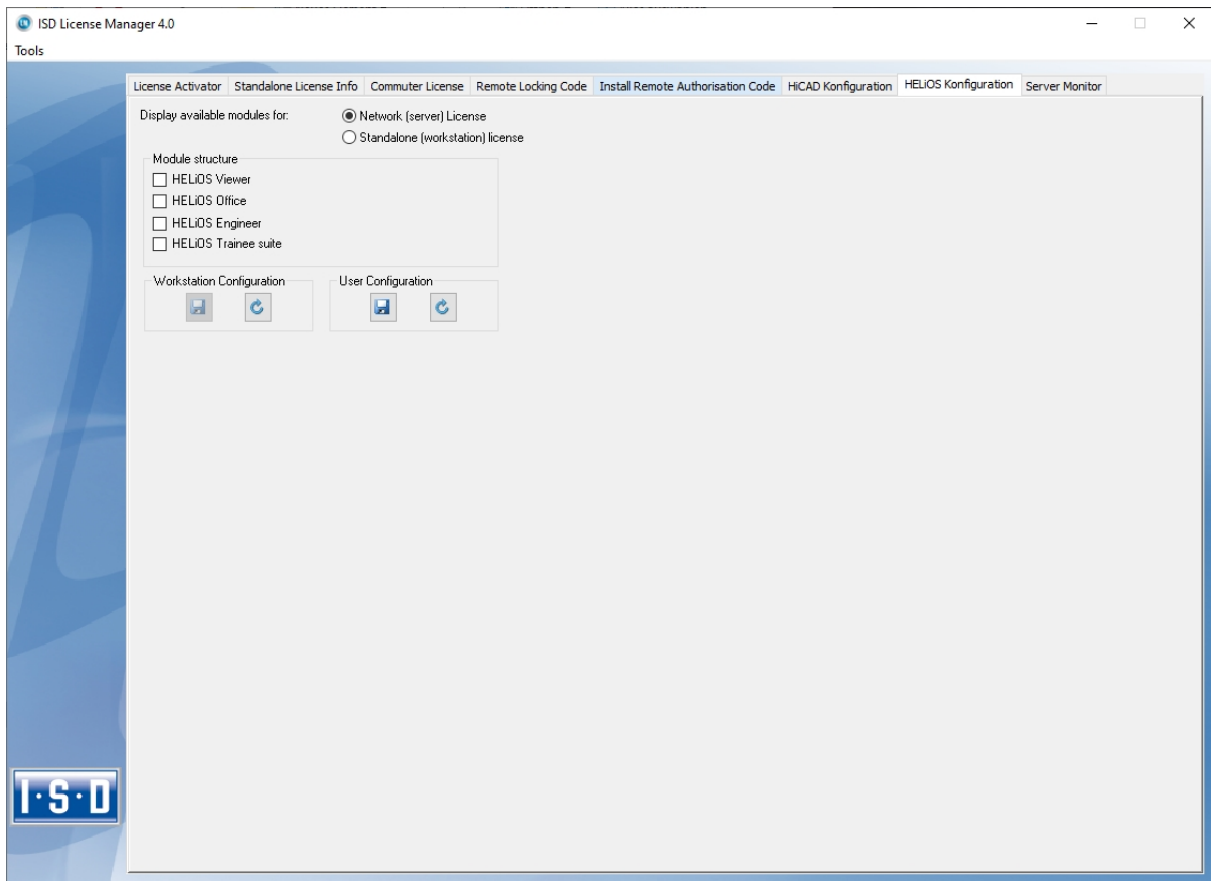
To update, the Client must click on the **Activate** button. The information which licenses are installed locally on the computer will then be provided to the Client.

## License Configuration

Some cases may require the use of only certain specific licences on a computer. Example: On the License Server HiCAD Creator and HiCAD Solution licenses are available. On one Client, HiCAD is to be started with a HiCAD Creator license; on another Client, with a HiCAD Solution license. If the selected license is no longer available, an application start is no longer possible.

If there are several basic modules in a standalone (workstation) license (to which also the Commuter Licenses belong), it is mandatory to make a pre-configuration and save it as workstation configuration. If no pre-configuration is possible, the HiCAD configuration tab will be displayed before the start of HiCAD/HELiOS. If the selected configuration does not match the available licenses, a warning message will be issued, with a list of available licenses. After this, the configuration selection will be displayed again.





On the **HiCAD Configuration** or **HELiOS Configuration** of the **ISD License Manager** tool you have the option to save a workstation or user configuration for individual Clients.

- **Save as workstation configuration:** This configuration will be saved for all users of this computer. When HiCAD/HELiOS is started, the selection window is no longer displayed (administrator rights are required for this).
- **Save as user configuration:** This configuration is only saved for the current user. When HiCAD/HELiOS is started, the selection window with the saved configuration is always displayed.

These license configurations apply to network licenses and standalone (workstation) licenses.



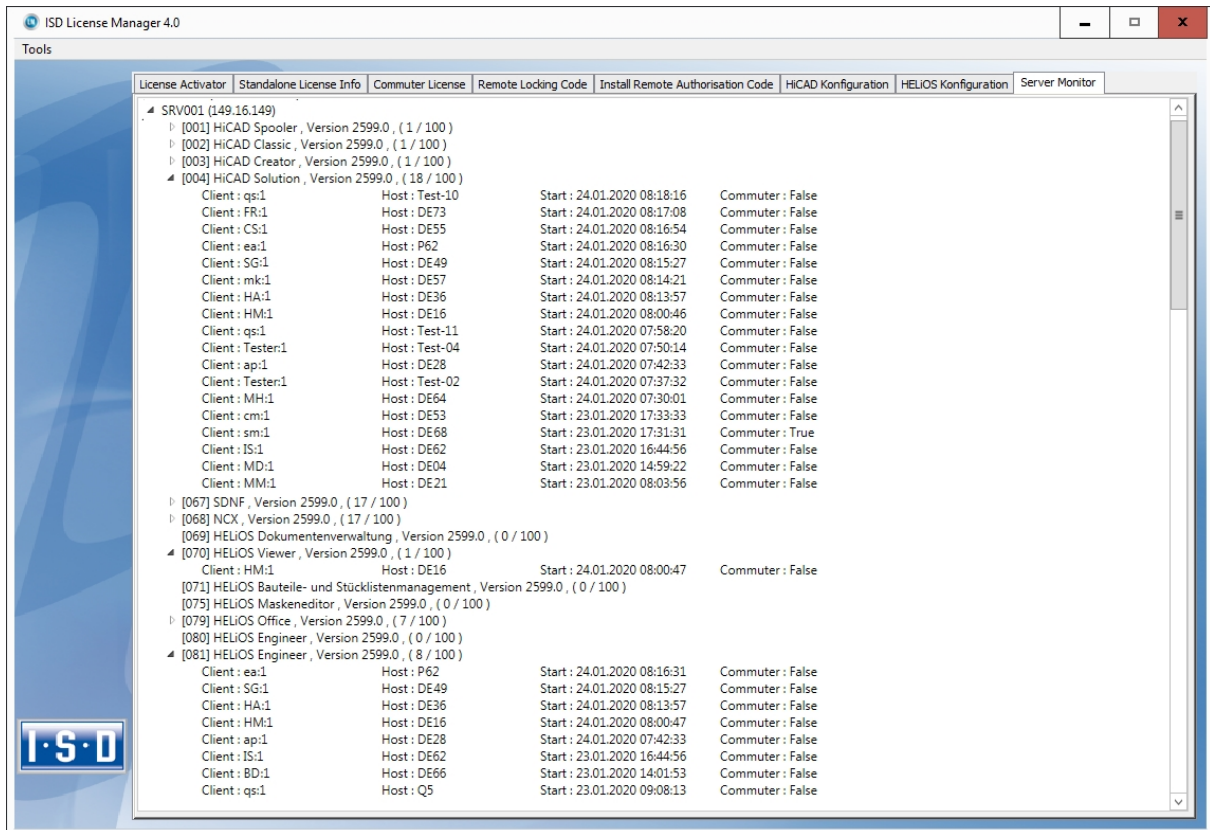
## Server Monitor

With the ISD License Manager tab **Server Monitor** you are allowed (as far as you are able to execute ISD License Manager) to view detailed information as follows:

- Listing of available modules with module description (e.g. “Element Installation”). Relevant is the License Server which the user is connected with.
- Apart from the module description, the maximum amount of available licenses as well as allocated licenses is displayed.
- You can open up the available modules and here the users using the respective license are displayed.
- The listing of users using a license also shows which user is connected with the License Server and which user uses a Commuter License.

By listing the licenses you can easily see who blocks licenses and, for example, easily speak to them in case if you need a license.

In the installation program, the tab **Server Monitor** is activated by clicking on the option **Activate license administration tools**.



## Theft of a Workstation

The user is responsible for appropriately insuring the HiCAD and HELiOS workstations against theft. If desired, we can tell you the reinstatement value of your software. If a workstation is stolen, you will need a new license. In such cases, please send us the police report of the theft first. We will then provide you with a license for a limited period of time, and submit an offer for a new license to you. The ISD will send you the new license after clarification of the case with your insurance and receipt of your payment for the license fee.

## First Steps

- HiCAD at a Glance
- Start HiCAD
- DLL Check
- Start Center
- Close HiCAD
- HELiOS at a Glance
- Start HELiOS
- What's New in Version 2020?

## HiCAD at a Glance



HiCAD is a versatile CAD with a unique, combined 2-D/3-D approach, innovative functions, comprehensive industry solutions and an integrated PDM component. State-of-the-art technologies and a multitude of automatisms help you speed up your daily routine tasks. And simulation and analysis tools enable you to find and correct possible collisions and errors in your product models at very early design stages.

Performance characteristics:

- Microsoft Windows Standard
- GUI with multifunctional toolbar (Ribbon)
- Combined, fully associative working in 2-D and 3-D
- From 2-D to 3-D via model reconstruction
- Part-oriented designing
- Combined free ("direct") and parametric modelling
- Information + Communication Navigator (ICN)
- Automatic object snap and context menus (opened via right-click)
- Access to extensive symbol and standard part libraries (also online)
- Function simulation with the HiCAD Constraints Manager (HCM)
- Mounting, transport and motion simulations
- Free-form surface (FFS) technology
- Part referencing
- Feature technology
- Material Editor and lighting models
- Integrated Product Data Management (PDM) with HELiOS
- Transfer of data from other systems (CATIA, ME10, STEP, DXF, DWG etc.)
- BOM creation, PPS interface, data transfer to NC machines
- Powerful and versatile industry solutions
- Modular, expandable structure

## Start HiCAD

You start HiCAD by


- Selecting the HiCAD symbol  via the Start button on the Windows task bar (**Start > All Programs > ISD Software und Systeme > HiCAD**), or
- via the HiCAD icon  on the Desktop of your computer.

Once you have started HiCAD, the input window for License Management is initially displayed, followed by the HiCAD Start Centre (provided that it has not been deactivated).

If you use HiCAD in conjunction with HELiOS, a login may be required to start HiCAD.

To make the best possible use of the numerous new features and enhancements offered by HiCAD, check out the videos explaining the new and changed HELiOS functionalities. From now on we will provide you with such videos with each Major Release and Service Pack to keep you constantly informed in the best possible way.

You can configure the display of the **News window** at the bottom left. Please note that you can configure the display of the News window at the bottom left. We recommend using the **Show most recent news** option to ensure that you will never miss any news about HiCAD. If you selected the **Show never** option, you can call the News win-

dow again at any time and change the display option by clicking on the  symbol at the top right and selecting **Show news**.



### Please note:

During the start of HiCAD it is checked whether the required version of .NET Framework is actually installed. If this is not the case, an appropriate error message will be displayed and HiCAD will be closed.

## DLL Check

Due to entries in the Windows-Registry, more and more libraries from third parties (DLL file) are integrated when HiCAD is launched, e.g. in order to capture messages or outputs to the screen. Some examples are

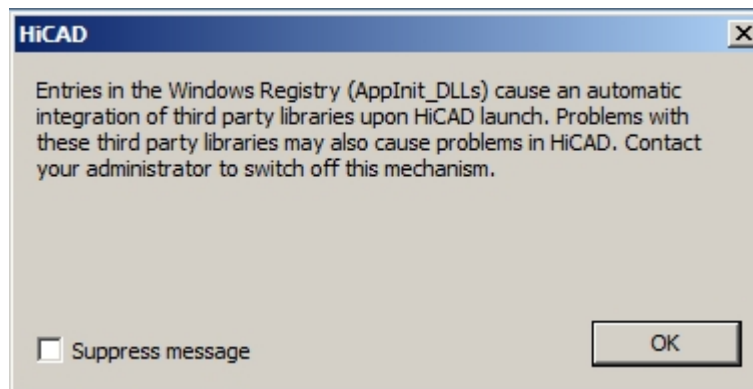
- Virus scanners,
- PDF creation programs,
- Programs for recording of screen activities,

etc. These files can sometimes cause problems.

When you start HiCAD, it will first be checked whether DLL files are assigned to the Registry value AppInit in the Registry key

- HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Windows (64-Bit)
- HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows NT\CurrentVersion\Windows (32-Bit)

If this is the case, the following message will be displayed:



Activate the **Suppress message** checkbox if you do not want this message to be displayed upon future HiCAD starts. Also inform your administrator about the message. The message will not reappear until the Registry value changes again, i.e. not until other DLLs will be loaded!

If you want to completely suppress the message, you can also set the registry value **CheckBoxState** in the registry key

- HKEY\_CURRENT\_USER\Software\ISD Software und Systeme\HiCAD [Jahresversion, z.B. 2020]\Splash Screen to **1**.

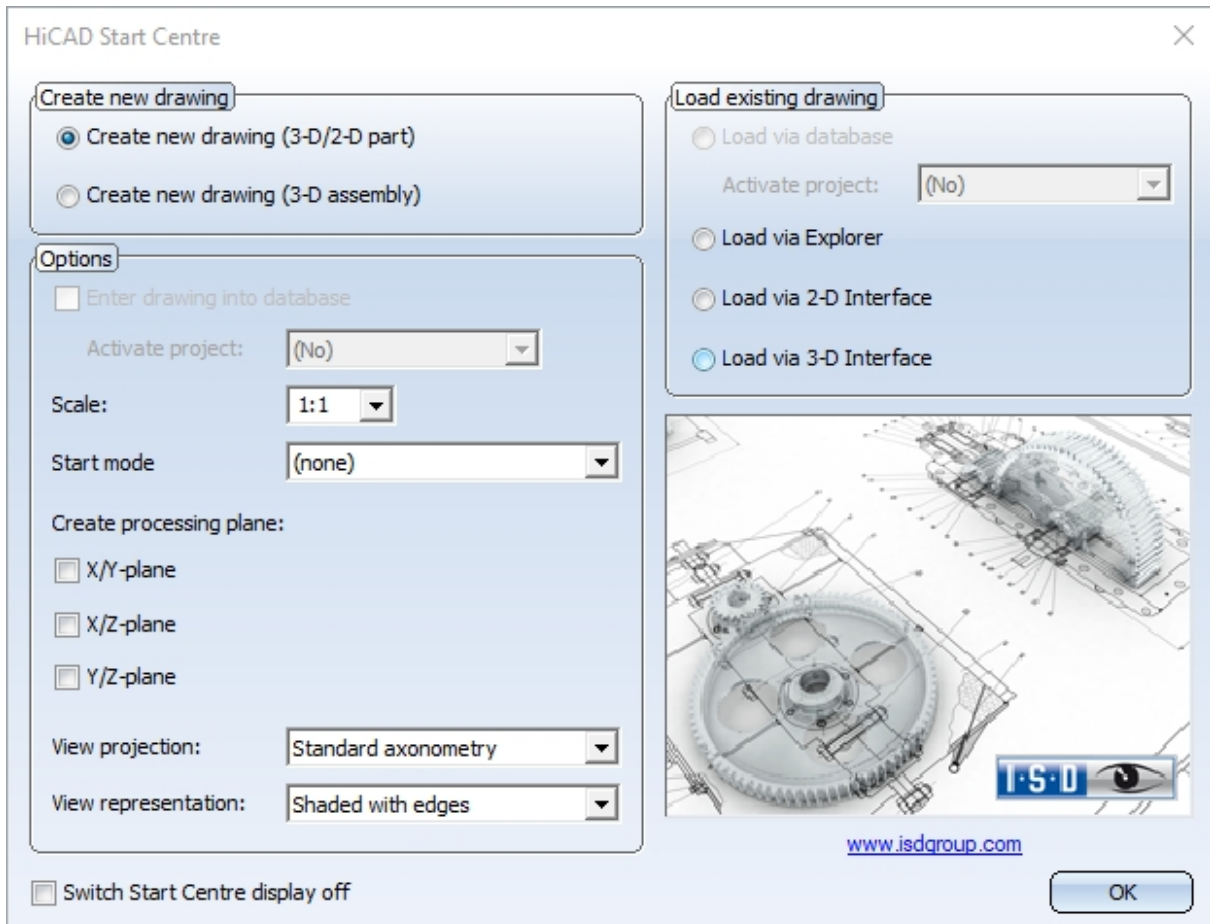



### Important:

Be careful when editing the Registry! The entering of incorrect values or the deleting of values may destabilize the operating system!

## Start Centre

When you start HiCAD for the first time, the **Start Centre** will be displayed, which has been designed to facilitate your first steps of drawing creation.



- Click on the graphic to obtain information about the version number, the name of the current drawing and the occupied memory. This corresponds to the calling of the function **HiCAD** in the  menu.
- When you call the Start Centre again, the last set values will be displayed as default values.
- The settings you have selected for the start action **Create new drawing** will even be used in HiCAD if you call the **New drawing** function while the Start Centre is inactive.

If you want to create a new drawing, specify whether you want to create a part drawing or an assembly drawing by activating the appropriate checkbox.

- **Part drawing** (aka Detail drawing)  
In a part drawing (detail drawing) you divide your drawing into main parts and sub-parts. To define the part structure you use so-called dummy parts which symbolise the assembly. You then assign assembly-relevant main parts and sub-parts to these dummy parts. Instead of dummy parts you may as well use the special part type Assembly.
- **Assembly drawing**  
You can define 3-D drawings directly when creating the assembly drawing and - if you are working in parallel with HELIOS - enter them into the database. This provides significantly more efficiency, particularly for referencing, itemisation and BOM-creation.

## Options

- **Enter drawing into database**

You can define 3-D drawings directly when creating the assembly drawing and - if you are working in parallel with HELIOS - enter them into the database. This provides significantly more efficiency, particularly for referencing, itemisation and BOM-creation. If you are working with HELIOS you can define here whether you want the new drawing to be entered into the database. If you activate this checkbox, HiCAD will prompt you to specify the document master data once you exit the Start Centre. If not, you will be prompted to enter the name of the drawing file.

Activate, if desired, the project to which you want to assign the drawing.

- **Scale**

Here you can preset the scale of the drawing.

- **Start mode**

Here, choose the start mode you want to be activated once you exit the Start Centre, e.g. **2-D**, if you want to start the drawing in 2-D or **3-D Extruded solid**, if you want to start your drawing by creating an extruded solid in 3-D.

- **Create processing planes (3-D only)**

Here you can specify which of the standard processing planes you want to create. Activate the appropriate checkbox.


- **View projection and View representation (3-D only)**


If you want to work in 3-D, use these functions to pre-set the model view and the view representation.

## Load existing drawing

If you have chosen **Load existing drawing** as start mode, you can specify whether you want to load the drawing via the database, the Explorer or via an interface. As with a new creation, you may also activate the project directly.

## Switch Start Centre off


If you activate the **Switch Start Centre display off** checkbox and click **OK** to exit the Start centre, the current settings will apply as the default settings for whenever you start HiCAD again and create new drawings. The Start Centre is then no longer displayed. To re-activate the Start Centre display and to change the settings, choose **Settings**  > **Activate Start Centre**. The changed settings will be applied when starting HiCAD again.

If you click **OK** to exit the Start Centre, the current settings are used as the default setting if, on the other hand, you exit the Start Centre by pressing the **ESC** key or clicking on the  icon, the settings will be ignored.



## Close HiCAD

To close HiCAD,

- just click on the  icon at the top right , or
- Click on the ISD Button at the top left and choose **End**.

If HiCAD drawings are still open at this point, you have the option to save them. HiCAD distinguishes between the currently open drawing, i.e. the one that you see on your screen, and other drawings that are also still open. If a file with the same name already exists, you can either save the drawing under a different name, or overwrite the existing file with the same name. Please note however that no backup copy will be created in this case!



### **Important:**

When closing HiCAD, all files except for the auto-saved files will be removed from the TEMP directory of your HiCAD installation.

## HELiOS at a Glance

On the way to the finished product, invested time, spent costs and product quality can only be optimised if all departments of a company cooperate efficiently. This requires a well-structured and efficient exchange of information between the parties involved in the production process - from Manufacturing, Purchasing and Service to Marketing and Sales.


HELiOS is a state-of-the-art PDM/PLM system providing all essential tools for an error-free gathering, management and distribution of the data required for the production process chain. Once saved, these data can be re-used within the entire company and for the complete product life cycle. HELiOS manages and controls all process cycles by regulating and monitoring the processing and transfer of these data.

By combining Product, Process and Peripherals Management in a single system, HELiOS becomes the central “knowledge reservoir” of your company and guarantees transparent and secure processes.

HELiOS can be interfaced with your CAD system or used as a stand-alone system, the so-called HELiOS Desktop - either as a single workstation or at different locations.

Thanks to its modular structure, HELiOS can be optimally adapted to company-specific requirements.

## Start HELiOS


Start the HELiOS Desktop by double-clicking on the HELiOS.EXE file in the \HELiOS\exe directory or via the HELiOS icon  on the Desktop of your computer.

Default setting is the project-independent start. Please note that the list view in the right-hand window will not be shown when you start HELiOS Desktop for the first time. Select a project first and display the list view via **View** and then **Lists**.

If you have not closed HELiOS correctly during your last session, you will receive an error message from the Vault Server.

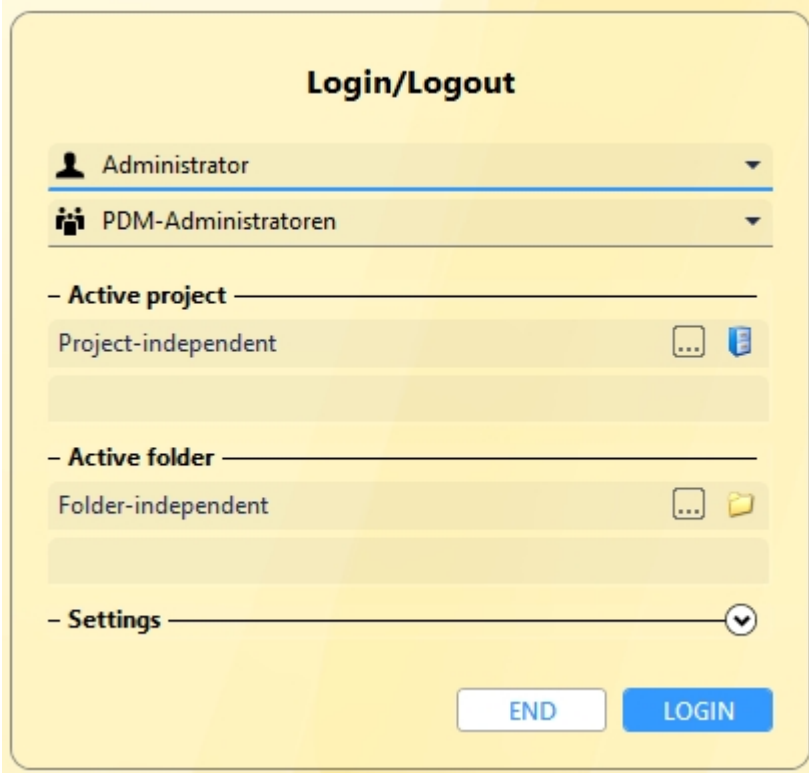
To make the best possible use of the numerous new features and enhancements offered by HELiOS, check out the videos explaining the new and changed HELiOS functionalities. From now on we will provide you with such videos with each Major Release and Service Pack to keep you constantly informed in the best possible way.

You can configure the display of the **News window** at the bottom left. Please note that you can configure the display of the News window at the bottom left. We recommend using the **Show most recent news** option to ensure that you will never miss any news about HELiOS. If you selected the **Show never** option, you can call the News win-


dow again at any time and change the display option by clicking on the  symbol at the top right and selecting **Show news**.

## Login


The HELiOS User Management is based on the User Management of Windows. If several users are registered with the same Windows User Name in EDBSETUP, a login mask will appear when starting HELiOS Desktop.



**Login/Logout**



 Administrator

---

 PDM-Administratoren



---

- **Active project** \_\_\_\_\_


Project-independent  

---

- **Active folder** \_\_\_\_\_

Folder-independent  

---

- **Settings** \_\_\_\_\_ 


Name and active group enable the user to login with the rights guaranteed by the User Management.


If you select a project from the **Active project** drop-down list, this project will be opened after starting HELiOS Desktop. If you select the project-independent setting, all documents will be displayed.

Start the HELiOS Desktop with **Login**.


To ensure that a specific project will be opened after starting HELiOS Desktop, you need to specify a Start Project. On the Ribbon, activate the **Tools** tab, then select **Options**, activate in the dialogue the **General** tab and choose a start project.


## Switch user

Use the **Switch user**  function for a renewed login while working with HELiOS Desktop, e.g. to work with different rights without having to exit the program.

Activate the **Switch user**  function via the QuickAccess toolbar. Select a different user. Change the active project if required and confirm the new settings with **Login**.

## What's New in Version 2020?

An extensive overview of all changes and enhancements of HiCAD 2020 can be found in the **What's new?** topic of the Help. You can also click on the  button in the Help.

An overview in PDF format will be displayed if you click on the  button in the Download area of the ISD Wiki.

## How to Use the Help

The Online Help provides you with information, descriptions and examples on all functions and techniques which are available in HiCAD/HELiOS.



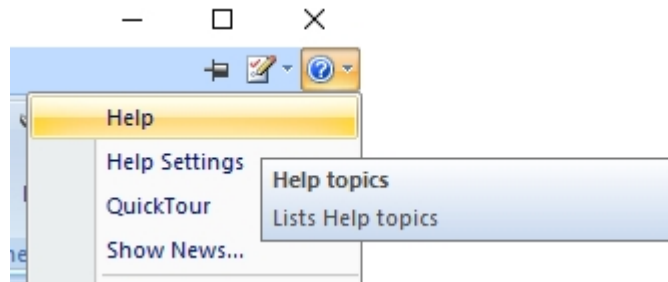
**Please note:**

The scope of available functions may vary, depending on the configuration of your HiCAD/HELiOS product. This means that some of the functions described in the Online Help may not be available in your version.

The Help is available both locally (status of the installation DVD) and on the Internet (regularly updated) at help.is-dgroup.com. Both versions of the Help can be called from HiCAD/HELiOS.



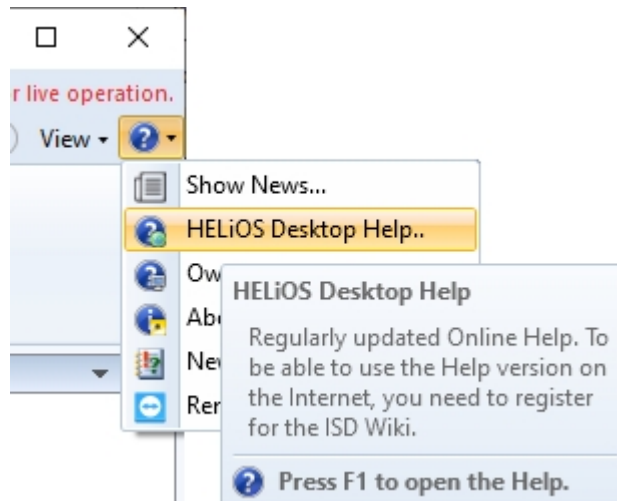
You can call the Help in HiCAD via the **Help Topics and Information** menu.



Choose **Help Settings** to determine which version of the Help will be used.



Click on the **HELiOS Desktop Help..** button to call the HELiOS Help.



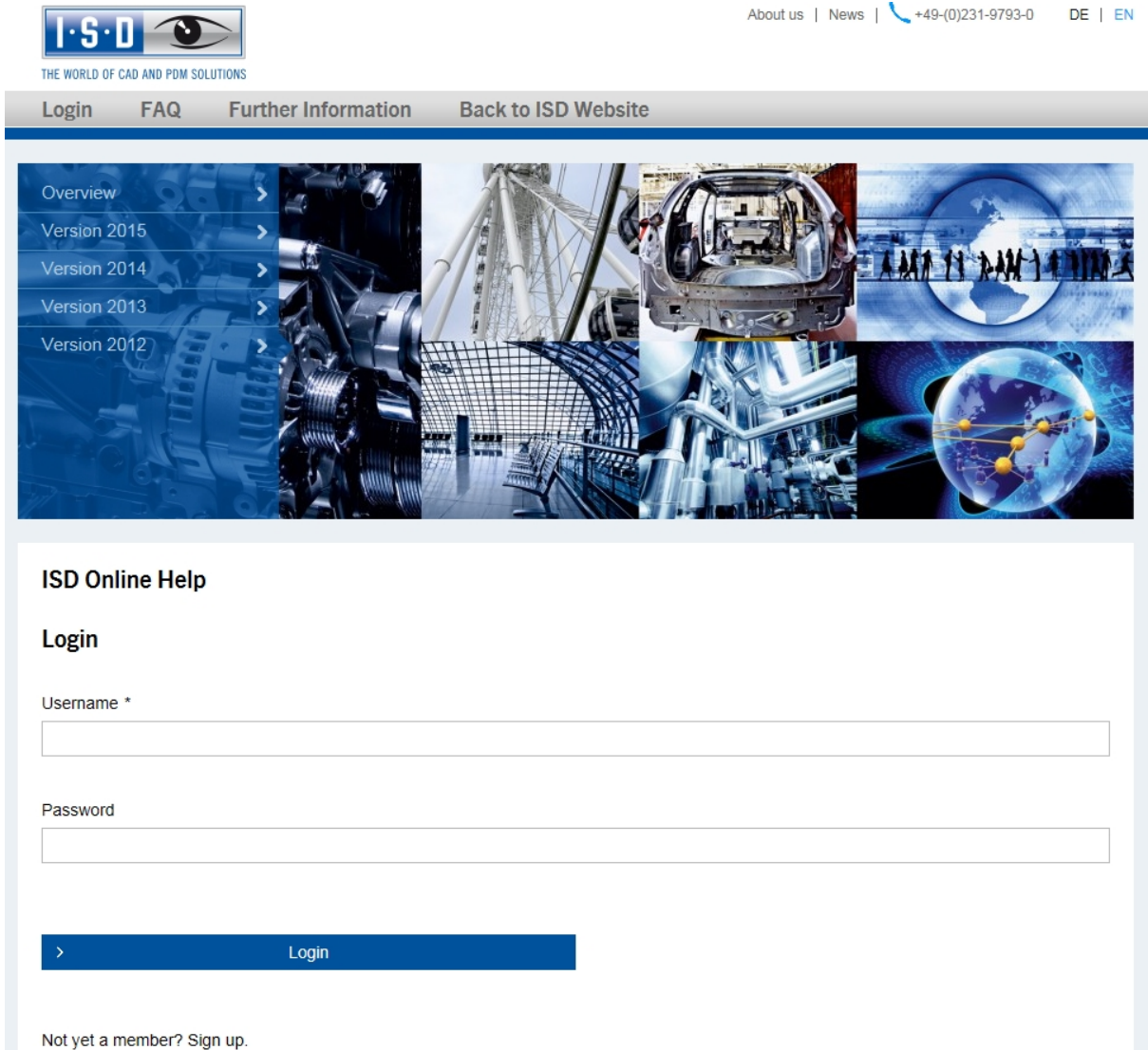
Choose **HELiOS Options** to determine which version of the Help will be used.

 **Please note:**

If you move the cursor over a function on the Ribbon and press the **F1** key, the Help page for that specific function will be displayed.

To be able to use the Internet version of the Help, you need to register for the ISD's new company Wiki once. This will not only give you access to the new Help, but also provide you with many other information which will be made available shortly in the ISD Wiki (Forum, Download area etc.)

Click **Sign up** in the login window of the Online Help to register. If you have already been registered, enter your access data and click **Login** to get directly to the start page of the Online Help.



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Overview >  
Version 2015 >  
Version 2014 >  
Version 2013 >  
Version 2012 >

## ISD Online Help

### Login

Username \*

Password

[> Login](#)

Not yet a member? [Sign up.](#)

After clicking **Sign up** in the Login window of the Online Help, enter the data required for the ISD Wiki in the dialogue window. Confirm the security prompt and click the **Sign up** button.



**Sign up**

Full Name

Email

Username

Password

Confirm Password

**o f f i n g**

**Sign up**

Already have a username and password? [Log in here](#)

After successful registration the dashboard of the ISD Wiki will be displayed. A message indicates whether you have been authenticated as an ISD customer.

If you could be identified as an ISD customer, you can now directly launch the Online Help using your registration data.

If you could not be identified as an ISD customer, please perform the steps described in the message.



**Important:**

By default the Online Help has been selected after installation. If you prefer using the local Help, start the Installation Wizard again and click on the **HiCAD and HELIOS Help** button.



## Hotline

Even after implementation, the support team of the ISD ensures competent support of their customers. Besides support over the phone, all current means of communication such as Fax, E-mail and Internet can be used. If any problems could not be solved in this way, our staff in all our offices will be there to help you at your company if required.

	Germany	Netherlands	Austria	Switzerland
<b>Phone</b>	+49 (0)231 9793-166	+31 (0)73 6153-888	+43 (0)732 21 04 22-28	+41 (0)32 624 13-47
<b>E-Mail</b>	support@isdgroup.com			
<b>Service hours</b>	From Monday to Thursday: between 8:00 am and 5:00 pm On Friday: between 8:00 am and 3:00 pm	From Monday to Friday: between 8:00 am and 5:00 pm	From Monday to Thursday: between 8:00 am and 5:00 pm On Friday: between 8:00 am and 3:00 pm	From Monday to Thursday: between 8:00 am and 5:00 pm On Friday: between 8:00 am and 3:00 pm

If all lines are busy, a voice mail system will be activated, allowing you to leave a message. Our staff will call you back as soon as possible. If a line becomes available during the recording of your message, your call will be accepted immediately. It is our ambition to solve your problems as quickly as possible and let you have the solution via phone or E-mail. A problem diagnosis will be made on the spot, and the existing problem will be dealt with and eliminated as fast as possible.

In cases where your problem cannot be solved immediately, we will call you back after analyzing the situation. Depending on the level of difficulty our Hotline will also bring in the Development department.

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## Scene API Standardalone Developer Package®

The HiCAD Point Cloud module contains the SCENE API Standalone Developer Package®.

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## Protocol Buffer

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