HiCAD 2012

HiCAD/HELiOS
Getting started

System requirements
Installation guide
Licensing
Update Information
First Steps
News

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HiCAD/HELiOS

Getting Started

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1 System Requirements

1.1 Hardware Requirements for HiCAD

For the installation of HiCAD you can use any hardware that possesses current drivers for the operating systems used. Please note, for instance, that the graphics card drivers need to support the complete OpenGL instruction set.

» Hardware requirements (minimum):

- Pentium 4 compatible processor with SSE2 support
- 4 GB RAM
- approx. 3 GB disk free space
- DVD drive
- Screen resolution of 1280 x 1024
- Fully OpenGL capable graphics card with at least 128 MB memory (if the error message **Set Pixel Format failed** is issued during program start, the OpenGL driver does not support the entire instruction set). You can use the **OpenGLCapabilityTester** to check whether the OpenGL capabilities of your computer are sufficient for HiCAD. This tool is available for download at www.hicad.isdgroup.eu > Service & Support > FAQ > **"What are the System and Hardware Requirements?"**

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.

» Supported operating systems:

- Windows 7 (with current service pack and security patches)
- Windows XP (with current service pack and security patches)

» Supported database systems (for HiCAD with HELiOS):

- Microsoft SQL Server 2000 and 2005
- Oracle Database Server 8i, 9i and 10g

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

» Optimal hardware equipment (October 2012):

Computer:	Fujitsu Siemens Celsius M470
Processor (CPU):	Intel® Xeon® Processor W3550 (8M Cache, 3.06 GHz, 4,80 GT/s Intel® QPI)
RAM:	16 GB, DDR3-RAM, 1333 MHz
Hard disk:	1 SATA II disk (hard disk: Windows), 1 SSD SATA disk, 128 GB, 2.5 inch (hard disk: HiCAD)
Screen resolution	Full HD (1920x1080)
Graphics card:	NVIDIA Quadro 5000 (2.5 GB)
Operating system:	Windows 7 (64 Bit)

» Graphic cards

The following graphic cards are recommended for HiCAD operation:

Supplier	Model	Operating system (tested)
Nvidia	NVIDIA Quadro 2000 (1 GB)	Windows 7, Windows XP
	NVIDIA Quadro 4000 (2 GB)	Windows 7, Windows XP
	NVIDIA Quadro 5000 (2.5 GB)	Windows 7, Windows XP

Please note that insufficient graphics hardware will impair the performance and the quality of graphical representation!

1.2 System Requirements for HELiOS (Standalone)

For the installation of HELiOS you may use any hardware possessing current drivers for the operating systems used. Please note, for instance, that the graphics card drivers need to support the complete OpenGL instruction set.

» Hardware requirements:

- Pentium 4 compatible processor with SSE2 support
- 1 GB RAM

» Supported operating systems:

- Windows XP (32 Bit, with current service pack and security patches)
- Windows 7 (with current service pack and security patches)

» Supported database systems:

- Microsoft SQL Server 2000 and 2005
- Oracle Database Server 8i, 9i and 10g.

» Microsoft .NET Framework 4.0 or higher and Visual C++ Runtime Libraries need to be installed on the computer before HELiOS 2012 can be used; these packages will be installed by the HELiOS installer if required.

» If you want to work with HELiOS, one of the above mentioned database systems needs to be available and prepared for the use of HELiOS. Installation instructions (in .pdf format) and appropriate implementation of the server system can be found in the Readme directory of the HELiOS Installation DVD.

1.3 Hardware Requirements License Server

Processor (CPU):	x86 Processor for 32-Bit / x86-64 Processor for 64-Bit Recommended: 2 GHz Processor
RAM:	Minimum: 1 GB Recommended: 2 GB (with SQL Server: > 3 GB)
Hard disk:	1.2 GB free disk space
Operating System (Server)	Windows Server 2003 (32 & 64-Bit) Windows Server 2008 (32 & 64-Bit) Windows Server 2008 R2 (64-Bit)
Operating System (Client)	Windows XP (32 & 64-Bit) Windows Vista (32 & 64-Bit) Windows 7 (32 & 64-Bit)
IP/MAC Adress	A static IP address is required for an error-free operation of the license server. For virtual servers a static MAC address needs to be available.

A license server program does not need to run on a file server system or any specific hardware server. Suitable is any computer that fulfils the requirements.

1.4 Hardware Requirements HiCAD Spooler

Processor (CPU):	Intel or AMD SSE2 Support (64Bit operating system recommended, 4GB RAM)
RAM:	2 GB or more
Hard disk:	10 GB or more
Graphics card	OpenGL 2.0-capable graphics card with at least 256 MB memory
Screen resolution	1280x1024
Operating system	Windows XP 32Bit for a maximum of 10 clients (**Recommended**: Windows 7 – 64Bit) For more than 10 workstations: Server operating system with a sufficient number of user licenses

1.5 Hardware Requirements Vault Server

Processor (CPU):	Pentium III-compatible processor, Minimum: 1,0 GHz
RAM:	Minimum: 1 GB, **Recommended:** 4 GB or more
Graphics Card:	VGA (no special requirements)
Hard disk:	For software: 100 MB For user data: Depending on the amount of data to be expected, plus backup memory of >= 100% (distribution over several volumes/drives possible, redundant array of independent disks (RAID) for primary user data recommended)

Operating system (virtual servers also possible):	Windows XP SP3 Professional Windows XP SP2 x64 Professional Windows 7 Professional Windows 7 x64 Professional Windows Server 2003 SP2 Windows Server 2003 SP2 x64 Windows Server 2003 R2 SP2 Windows Server 2003 R2 SP2 x64 Windows Server 2008 SP2 Windows Server 2008 SP2 x64 Windows Server 2008 R2 x64

1.6 Further Installation Requirements

- **Microsoft .NET Framework 4.0 or higher** and **Visual C++ Runtime Libraries** need to be installed on the computer before HiCAD/HELiOS 2012 can be used; these packages will be installed as part of the HiCAD 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).
- If you use Nvidia graphics drivers, the **Common background/Z-buffer** needs to be switched **Off** (in contrast to HiCAD 2007 or older versions).
- If you want to work with HELiOS, one of these database systems needs to be available and prepared for HELiOS. Installation instructions (in .pdf format) and appropriate implementation of the server system can be found in the **Readme** directory of the HELiOS Installation DVD.
- Current information on system requirements can also be found on the Internet at www.hicad.isdgroup.eu > **Service & Support > FAQ**.

2 Installation

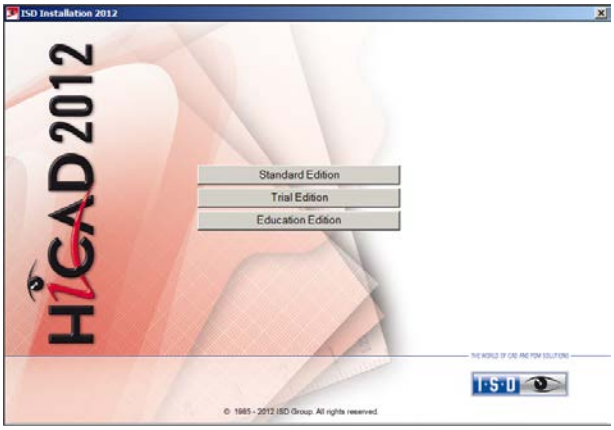
The DVD contains the installation files for:

- HiCAD
- HELiOS Desktop (Standalone)
- The Online Help
- The Vault Server
- The Plot Management
- HiCAD Viewer
- The License Server (the Hardlock driver is normally no longer required)
- The PostScript printer driver (required for the output of several views to a PDF file)

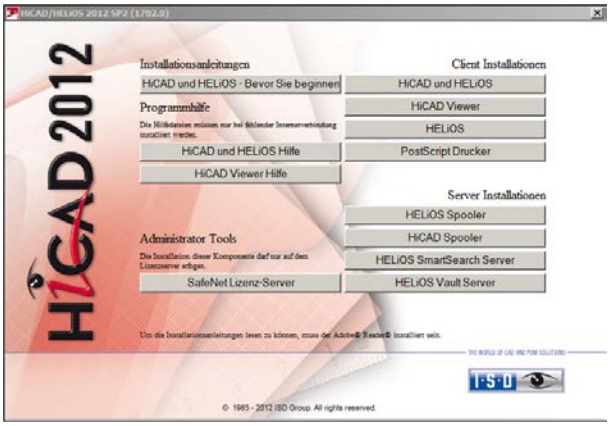
The DVD has been developed for Windows operating systems. When you insert the DVD, an installation wizard will be started automatically.

The HiCAD and HELiOS version must be installed on the hard disk of the computer; it is not possible to start the programs from the DVD.

If the Autostart function has been deactivated in the operating system, it is mandatory for the installation of HiCAD to start the **setup.bat** file from the root directory of the DVD; only in this way it is ensured that the version of the operation system (32/64Bit) will be recognised correctly, and the matching HiCAD version will be installed.

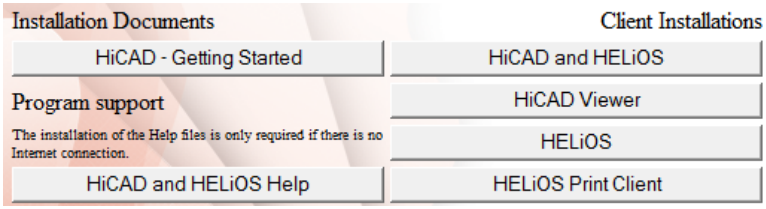


In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.



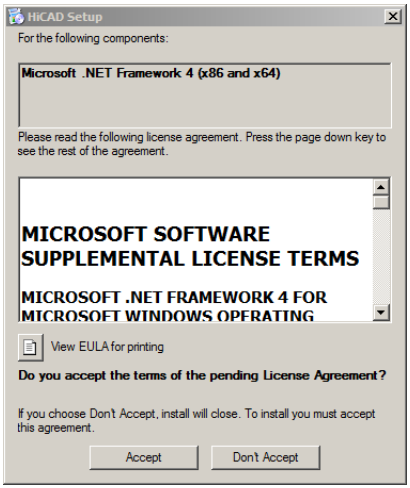
Leave this selection mask open, so that you can, one after the other, select the desired components.

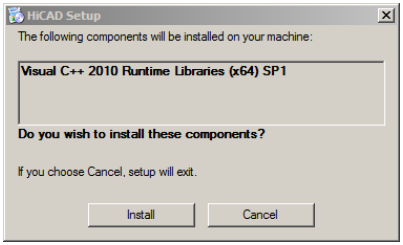
2.1 Installing HiCAD

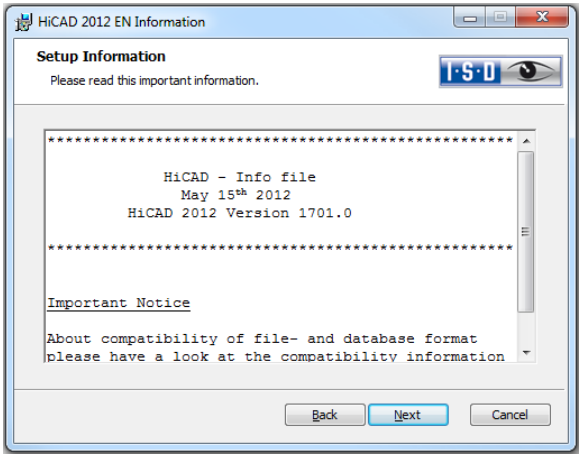


Click the **HiCAD and HELiOS** button to start the installation.

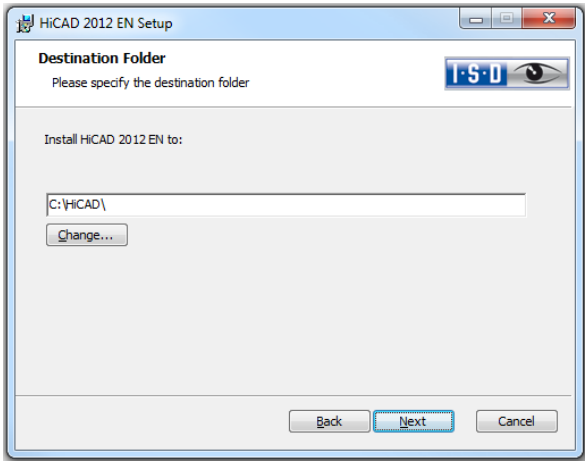
Microsoft .NET Framework 4.0 or higher and **Visual C++ Runtime Libraries** need to be installed on the computer before HiCAD/HELiOS 2012 can be used; these packages will be installed as part of the HiCAD installation if required.



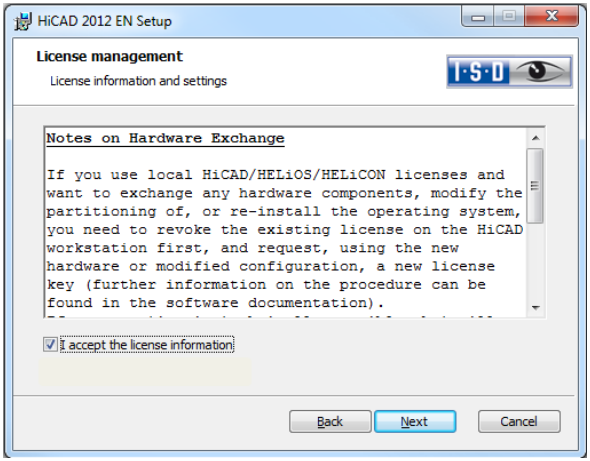




First, important information about **data compatibility** will be displayed. Please read this information carefully.



Specify an installation directory.



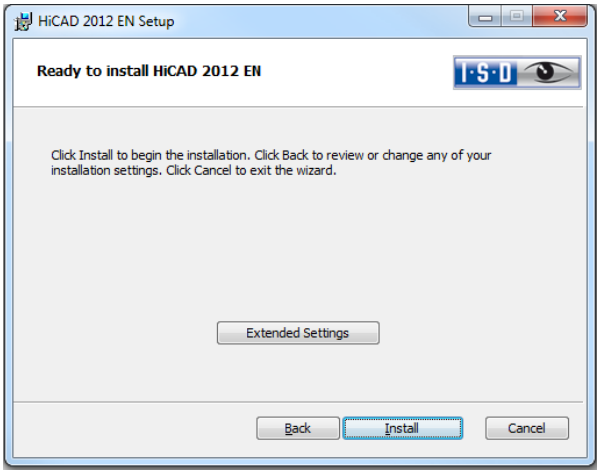
Please read the **Notes on Hardware Exchange** carefully.

Notes on Hardware Exchange

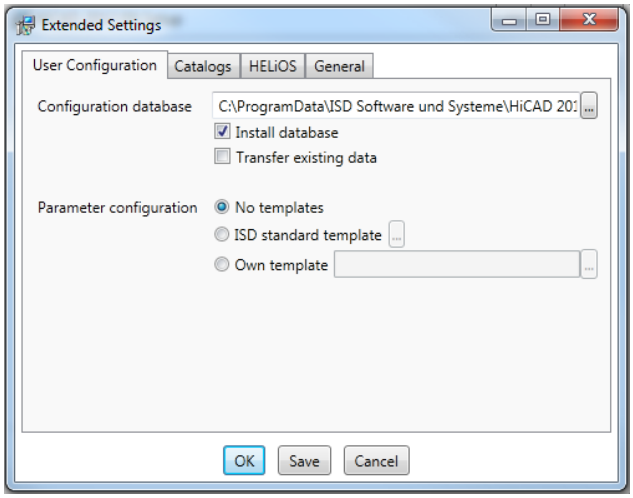
If you use local HiCAD/HELiOS/HELiCON licenses and want to exchange any hardware components, modify the partitioning of, or re-install the operating system, you need to revoke the existing license on the HiCAD workstation first, and request, using the new hardware or modified configuration, a new license 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.



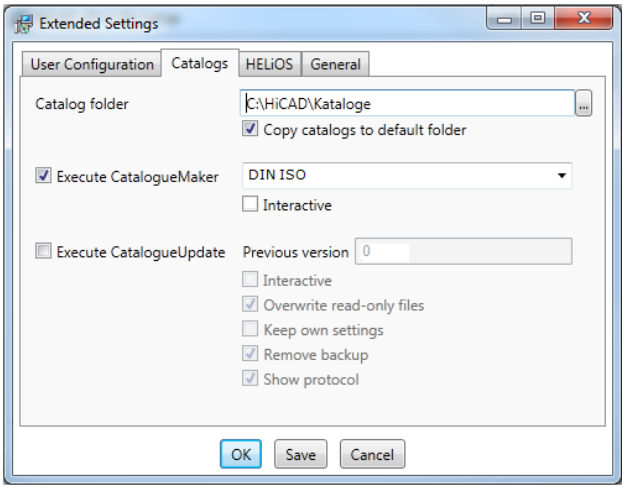
You can now start with the installation or modify the **Extended Settings**, e.g. for the user configuration, the catalogues, or HiCAD with HELiOS.



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 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.

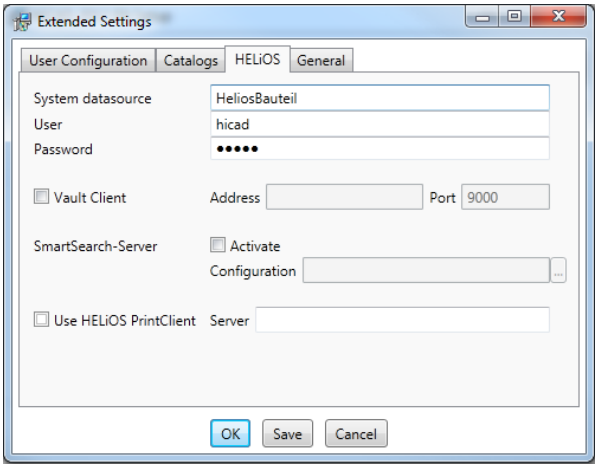
Depending on the selection in this window, the settings stored in the **CSV file**, too, will be applied. The standard CSV files are located in the *templates* directory of the HiCAD installation. CSV files are configuration templates that you can create and edit with Microsoft Excel (please see Online Help).

Parameter configuration: No templates (see Parameter Configuration chapter) 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).



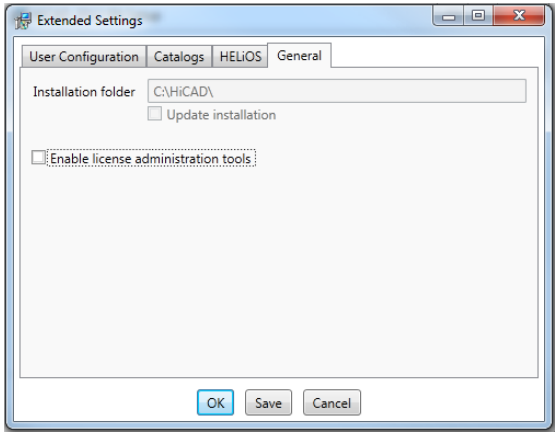
The execution of the **CatalogueMaker** serves the purpose of specifying which standard series are to appear in the standard part catalogues (currently standard series are available for DIN, ISO, EN, ANSI and JIS); the selection of standards in the **CatalogueMaker** only influences the display of standard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

When **Updates** are made, 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.

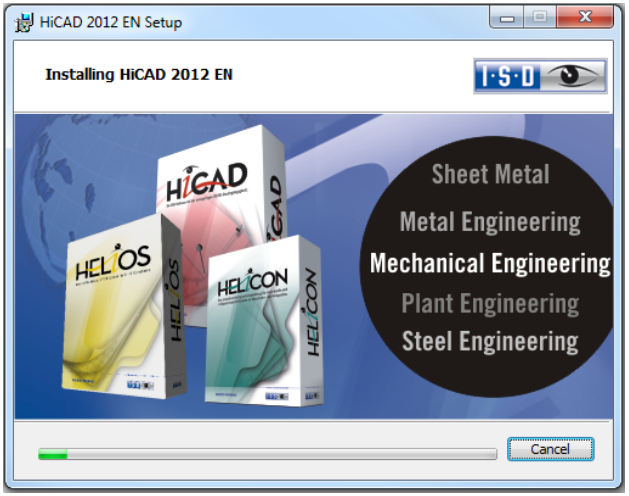
If you want to process your print jobs via the ISD **Plot Management**, you need to install one **PrintClient** on each workstation. In the **Server** field, enter the network name of the computer on which the Spooler is installed. The Spooler collects the print jobs and processes them, taking your settings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



You use the the **License Administration Tools** for the installation 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.

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

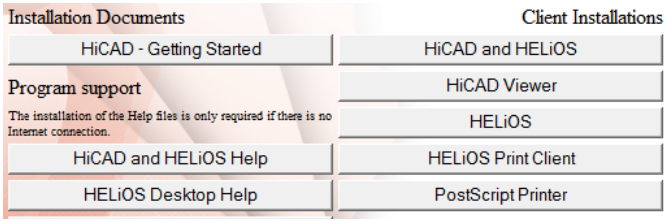


Click **Finish** to complete your HiCAD installation. If desired, you can use the buttons of the installation mask to install further software components.

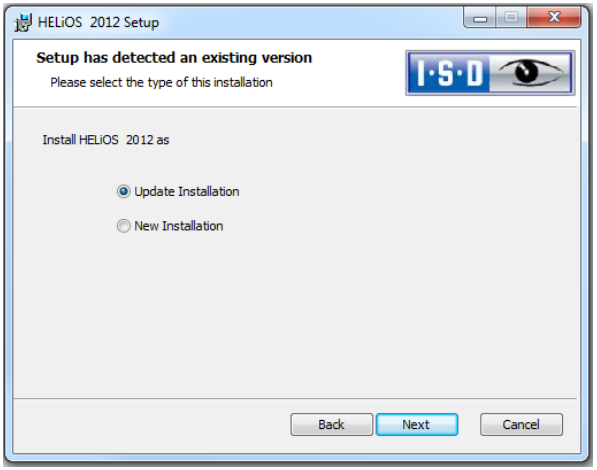
2.2 Installing HELiOS Desktop (Standalone)

The HELiOS Desktop is normally installed automatically when you install HiCAD. Of course, you can also install HELiOS separately. To do this, start Windows. If Windows is already open, close all other applications. Insert the HELiOS DVD in your DVD drive. The installation wizard will be started automatically. Follow the instructions on the screen.

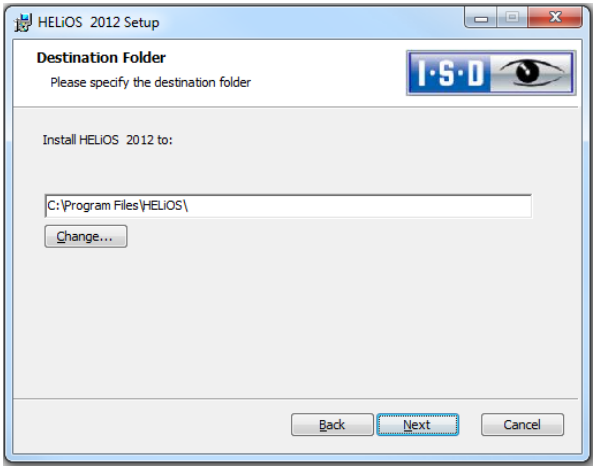
In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components. Please leave this selection mask open, so that you can, one after the other, install the desired components.

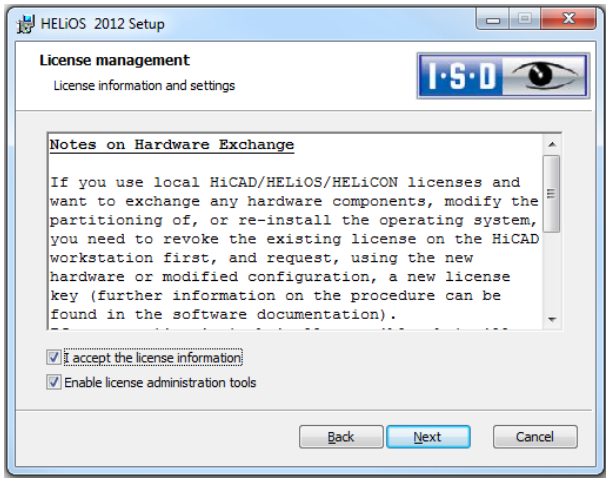


Click the **HELiOS** button.



Select **Update-Installation**, if a HELiOS Desktop has already been installed on your computer.





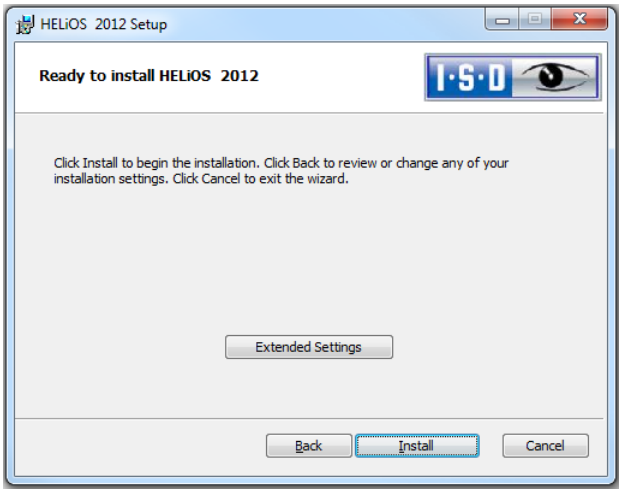
Please read the **Notes on Hardware Exchange** carefully.

Notes on Hardware Exchange

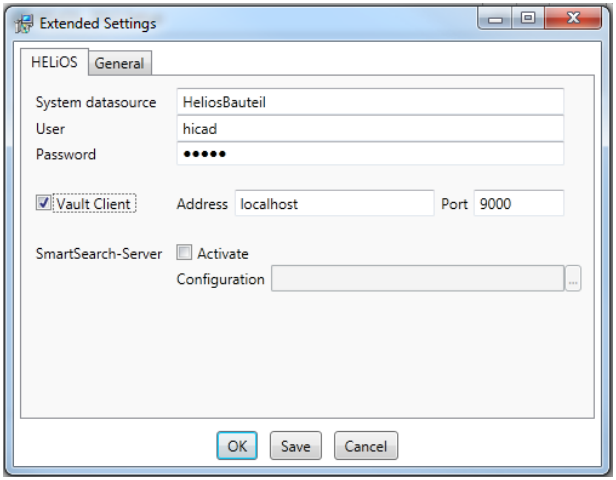
If you use local HiCAD/HELiOS/HELiCON licenses and want to exchange any hardware components, modify the partitioning of, or re-install the operating system, you need to revoke the existing license on the HiCAD workstation first, and request, using the new hardware or modified configuration, a new license 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.

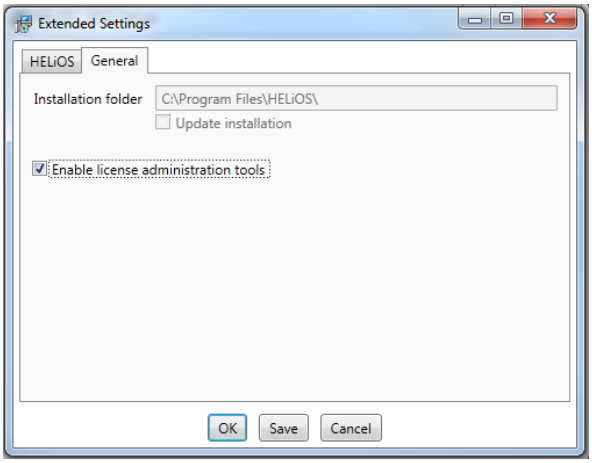
Accept the notes to continue with the installation.



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



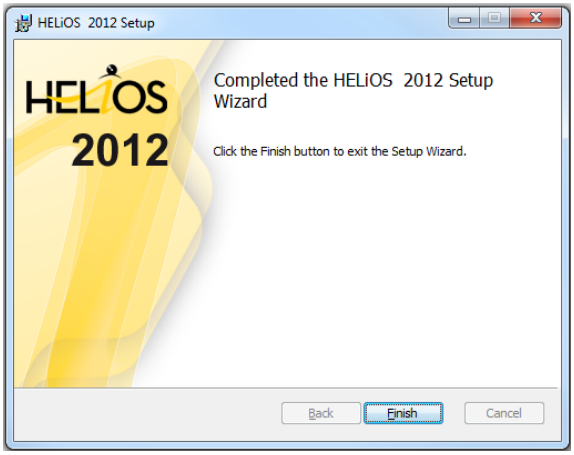
In case of a new installation you can specify an arbitrary name for the system data source. In case of an update, the existing data source will be offered. User and Password will be identical with the ODBC login.



Enable the **License Administration Tools**, as they are required for the installation 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.

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

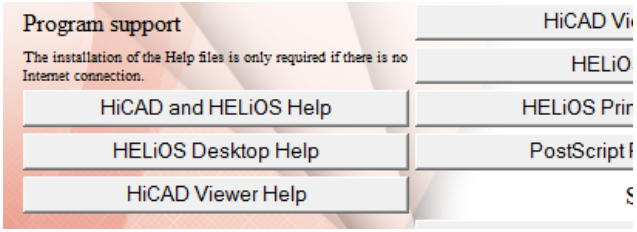


After successful installation, you will find the HELiOS shortcut on the Desktop for program launch.

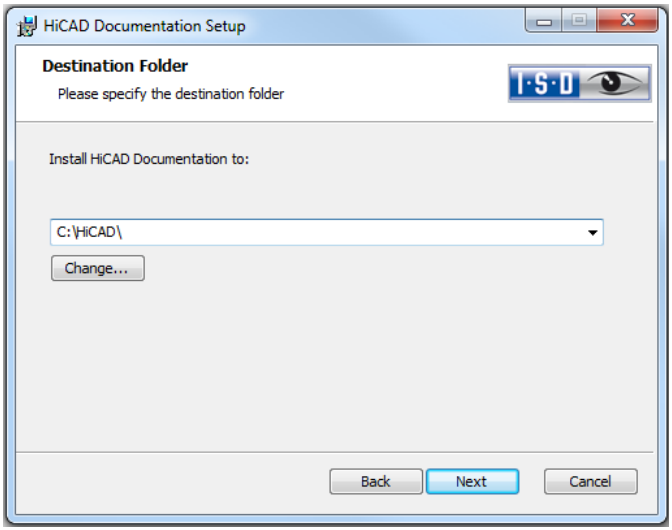
2.3 Installing the Online Help

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. Both versions of the Help can be directly launched from HiCAD. Please note that corresponding login data are required to access the Internet version of the Help.

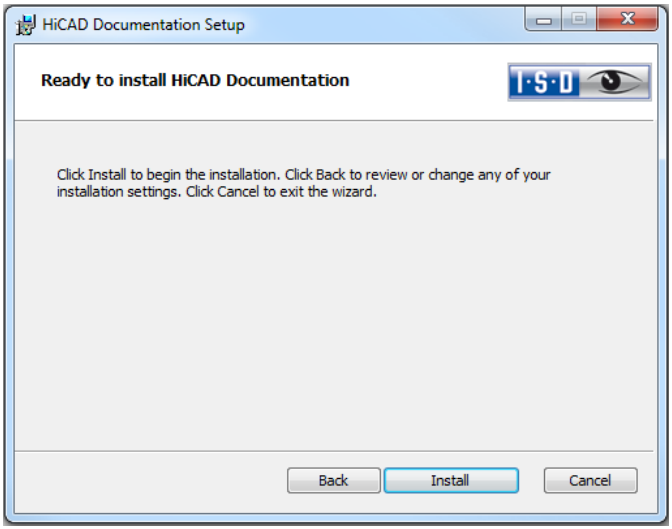
Start Windows to install the Help. If Windows is already open, close all other applications. Insert the DVD in the drive, which automatically starts the installation wizard. In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components. Please leave this selection mask open, so that you can, one after the other, install the desired components.

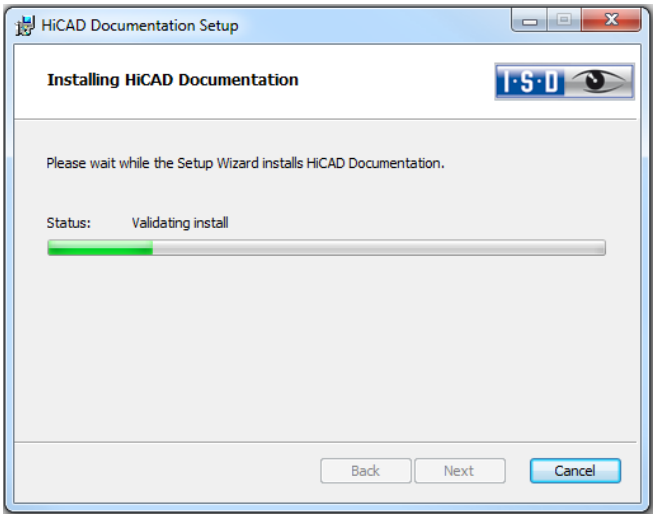


Click the **HiCAD and HELiOS Help** button.



Specify the installation directory for HiCAD/HELiOS.

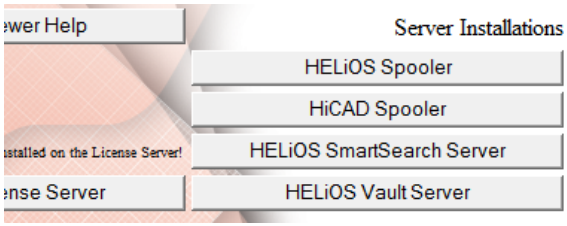




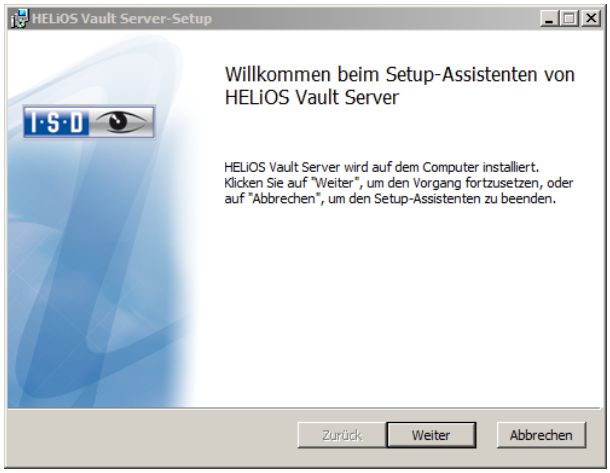
After successful installation, the Help can be found in the program folder and can be called via HiCAD/HELiOS.

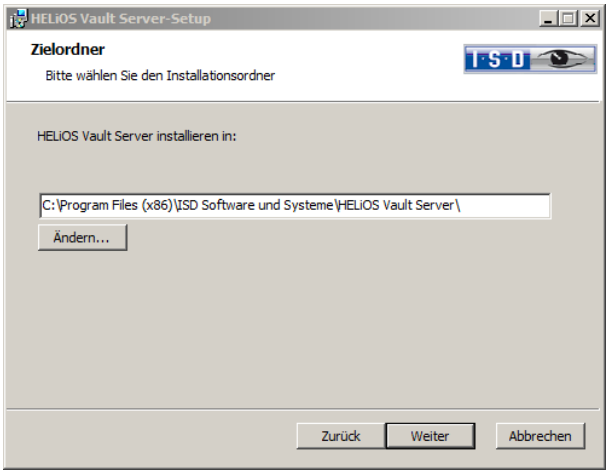
2.4 Installing the Vault Server

Start Windows to install the Vault Server. If Windows is already open, close all other applications. Insert the DVD in the DVD drive, which automatically starts the installation wizard. In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components. Please leave this selection mask open, so that you can, one after the other, install the desired components.

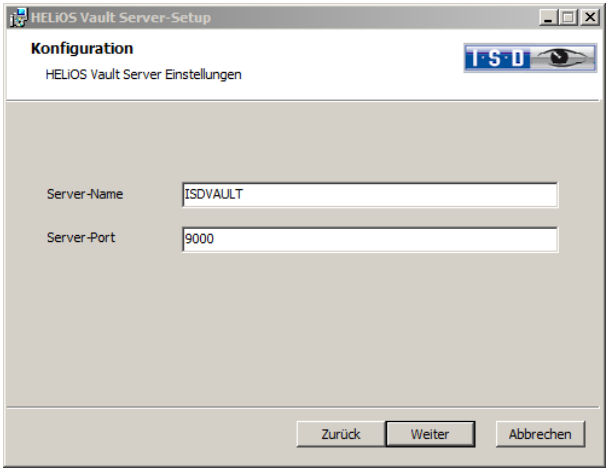


Click the **Vault Server** button.

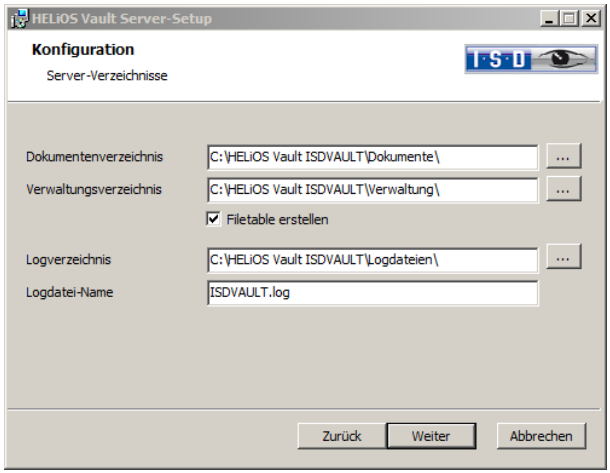




Specify the installation directory of the Vault Server.



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.



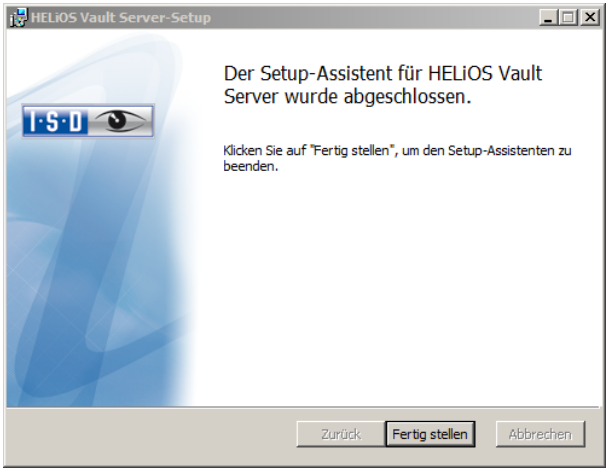
The Vault Server renames all documents that are managed in the database (e.g. SZA, DOC, XLS, …) to *.VDF. These VDF files are saved to the **Document directory**.

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 the **Install** button.



Click **Finish** to complete the installation of the Vault Server. You can now install further components offered in the selection mask if desired.

2.5 Installing the HiCAD Spooler

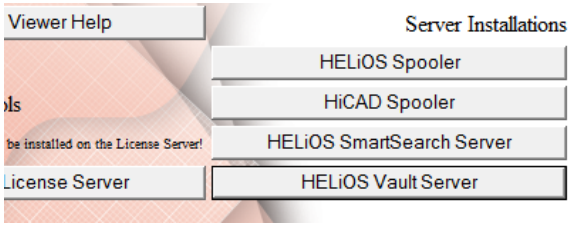
The Plot Management consists of the following two components:

» HiCAD PrintClient (part of the HiCAD installation; is installed on each workstation)

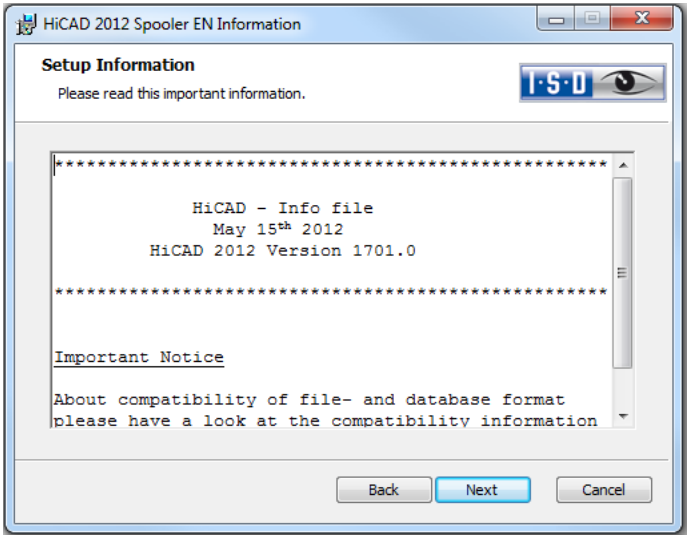
» HiCAD Spooler (is installed on the Server only)

Start Windows to install the components of the plot management. If Windows is already open, close all other applications. Insert the DVD in the DVD drive, which automatically starts the installation wizard. In the installation wizard, click the Standard Edition button, which opens a mask with various selection options for software components. Please leave this selection mask open, so that you can, one after the other, install the desired components.

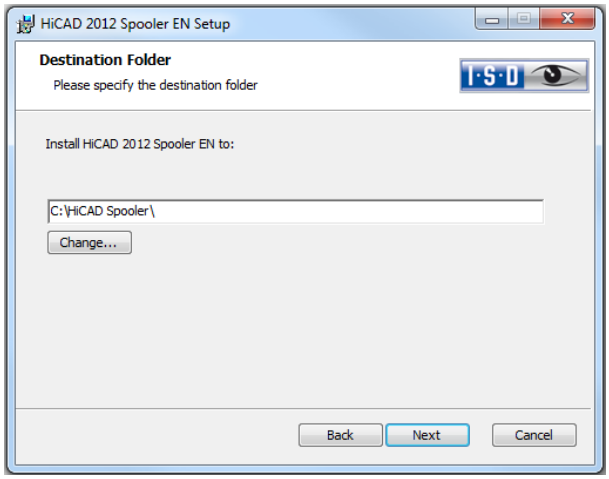
If you use Windows XP, Service Pack 3 is required for the Spooler.



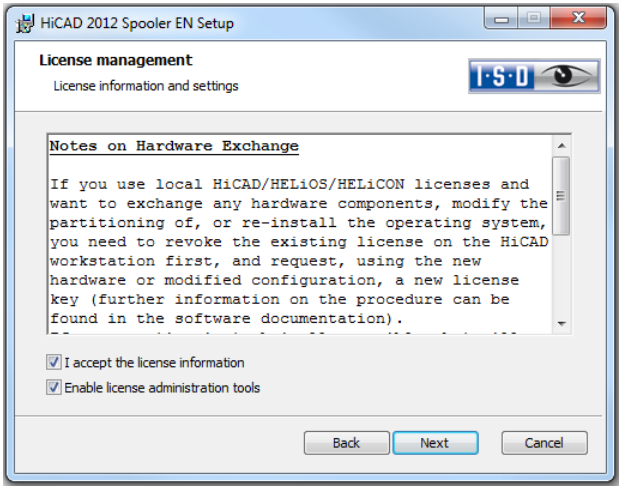
Click the HiCAD Spooler button.



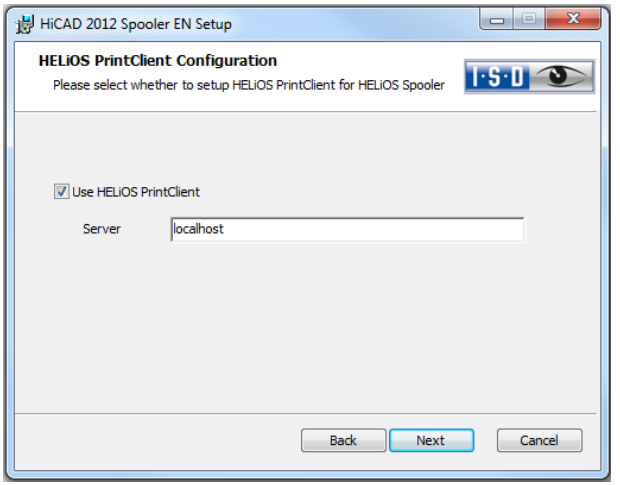
First, important information about **data compatibility** will be displayed. Please read this information carefully.



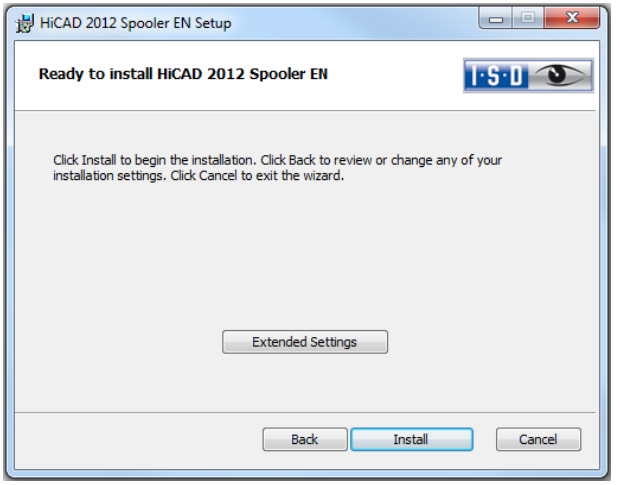
Specify the installation directory for the software.



Please read the **Notes on Hardware Exchange** carefully. Accept the notes to continue with the installation.

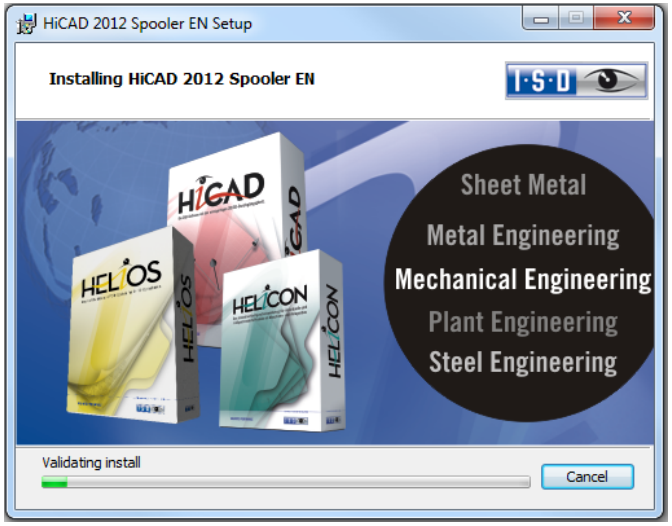


If you want to print your documents via the **Plot Management** of the ISD, you need to install one **PrintClient** on each workstation. In the **Server** field, enter the network name of the computer on which the **Spooler** is installed. The Spooler manages the print jobs and processes them according to your settings.



You can now click **Install** to start the installation, or modify the **Extended settings**, e.g. for the user configuration or the catalogues. The **Extended Settings** here are modified in the same way as the **Extended Settings** for the HiCAD.

Then click **Install**.



After successful installation, the HiCAD Spooler will be located in the program folder.

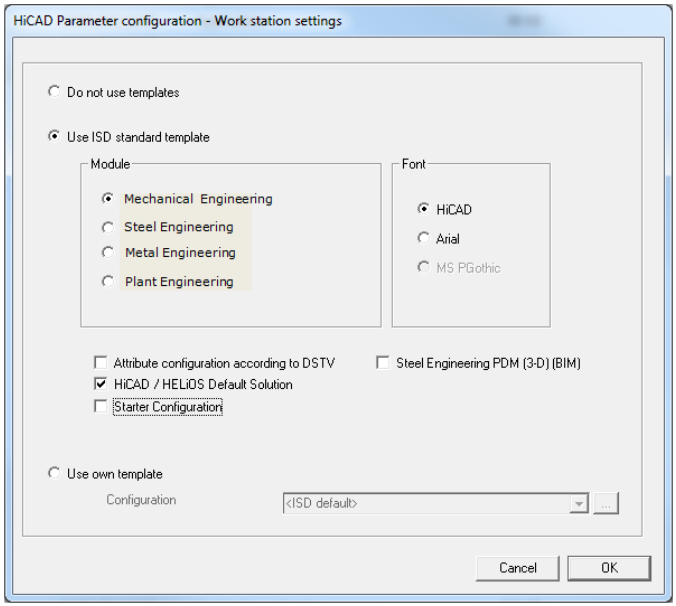
2.6 Parameter Configuration

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 (**Extended Settings > User Configuration > Use ISD Standard Templates**).

To change the parameter configuration subsequently, start the programs

» ..exe/**ParKonfigComp.exe** for the workstation configuration, and

» ..exe/**ParKonfigUser.exe** for the user configuration.



In the dialogue window you have the following setting options:

» Module
Here you choose the required filed 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.

» 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.

» 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.

» Use ISD standard template; Module: Steel Engineering:

Short description	Default	HiCAD configuration file	Line
General: Zoom factor <F2>-Zoom	5.0	sys\grapar.dat	50
General: Zoom window size <F2>-Zoom	0.9	sys\grapar.dat	52
Type of weight calculation for beams+profiles (1 = Exact volume * Density, 2 = DIN weight, Commercial weight)	2	sys\stb_parameter.dat	9
Type of weight calculation for plates+sheets (1 = Exact volume * Density, 2 = Length*Width*Thickness * Density)	2	sys\stb_parameter.dat	9
Representation of beams + profiles (0 = Simplified, 1 = Exact, 2 = Axis only)	0	sys\stb_parameter.dat	19
First Steel Engineering part item number	100	sys\stb_parameter.dat	31
Type of detection for first item number of main parts and sub-parts (1 = Start value, 2 = Factor, 3 = Allowance)	3	sys\stb_parameter.dat	34

Short description	Default	HiCAD configuration file	Line
Itemisation of Standard Parts (0 = No, 1 = Yes)	1 10000	sys\stb_parameter.dat	38
Itemisation of non-Steel Engineering parts (0 = No, 1 = Yes)	1 10000	sys\stb_parameter.dat	40
Consider boltings for identical part search	1	sys\stb_parameter.dat	55
Handling of existing item numbers when inserting Steel Engineering parts	1	sys\stb_parameter.dat	86
Consider part attributes for identical part search (0 = No, 1 = Yes)	1	sys\stb_parameter.dat	126
Consider database part master for identical part search (0 = No, 1 = Yes)	1	sys\stb_parameter.dat	128
Set negative item number for modified Steel Engineering parts	1	sys\stb_parameter.dat	143
Increment for assembly item numbers	1	sys\stb_parameter.dat	151
Increment for Steel Engineering part item numbers	1	sys\stb_parameter.dat	153
Increment for Standard Part item numbers	1	sys\stb_parameter.dat	155
Increment for non-Steel Engineering part item numbers	1	sys\stb_parameter.dat	157
Tolerance for identical part search	0.5	sys\stb_parameter.dat	184
3-D Dimensioning Settings			
Dimension line termination	Slash	sys\dimensioning_settings.xml	
Decimal places for linear dimensions	0	sys\dimensioning_settings.xml	
Decimal places for angular dimensions	1	sys\dimensioning_settings.xml	

Short description	Default	HiCAD configuration file	Line
Height of dimension figure	2.5	sys\dimensioning_settings.xml	
Height of dimension texts	2.5	sys\dimensioning_settings.xml	

- Copy HELiOS standard masks
  This option should only be activated if you work exclusively on the basis of the ISD standard database. Please note that changes you applied to database masks will be overwritten.

- Starter Configuration
  If you want HiCAD to be preset so that the automatic procedures of the novice configuration apply, activate this checkbox.

- Use own templates
  Activate this option if you want to use your own configurations. Then select the relevant configuration file.

2.7 Installing the HiCAD Viewer

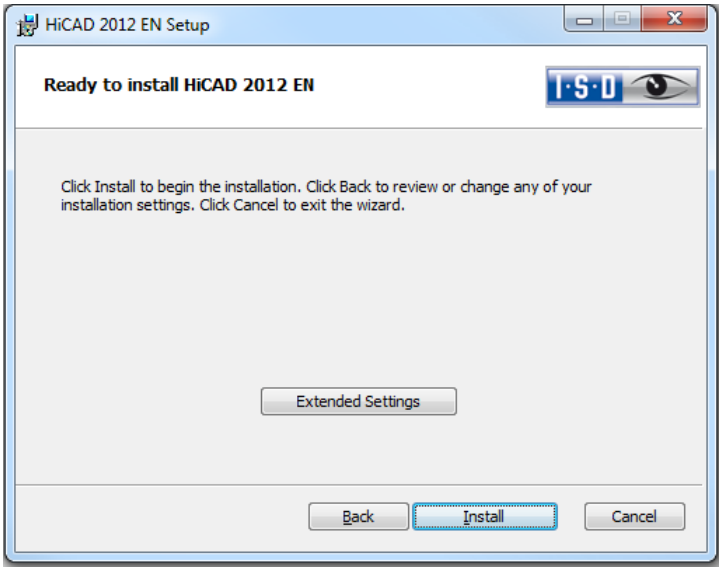
The HiCAD Viewer enables you to view drawings in HiCAD format (*.sza, *.szx) and output these drawings (in non-scale representation). This viewer is free of charge and may be provided free, without changing the scope of delivery.

3 Procedure for Silent Installations

3.1 Installation Settings

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

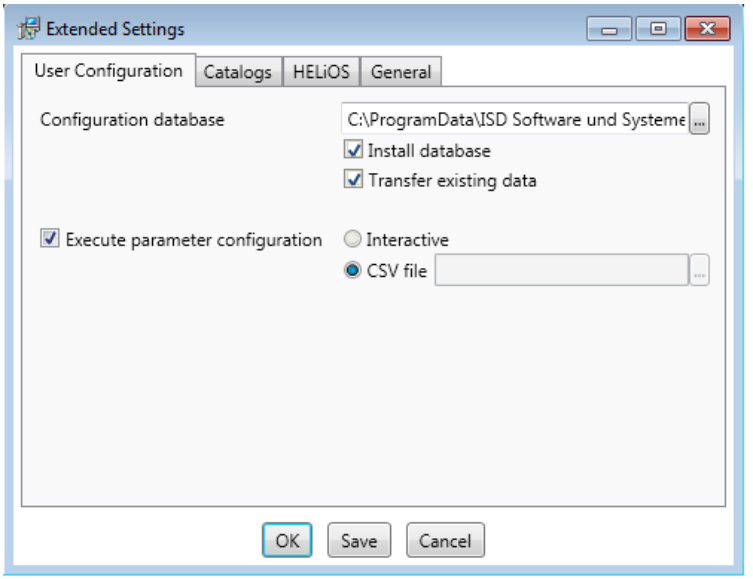
In the last dialogue of the installation, click on **Extended Settings**.

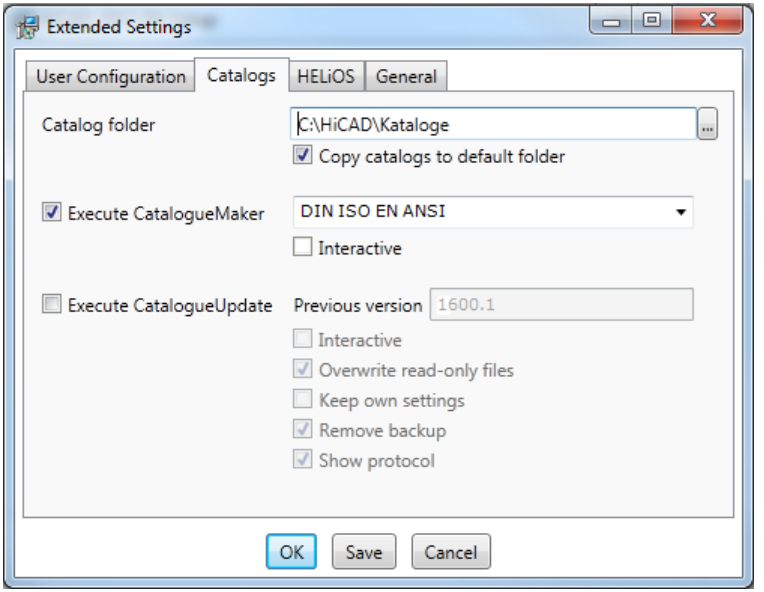


Here you can configure in particular the settings for the **User Configuration** and the **Catalogs** in such a way that user interactions will no longer be required.

» Execute parameter configuration: Via **CSV file**,

» Execute CatalogueMaker/CatalogueUpdate: Deactivate **Interactive** button.


Extended Settings
User Configuration
Catalogs
HELiOS
General
Configuration database
C:\ProgramData\ISD Software und Systeme
Install database
Transfer existing data
Execute parameter configuration
Interactive
CSV file
OK
Save
Cancel


Extended Settings
User Configuration
Catalogs
HELiOS
General
Catalog folder
C:\HiCAD\Kataloge
Copy catalogs to default folder
Execute CatalogueMaker
DIN ISO EN ANSI
Interactive
Execute CatalogueUpdate
Previous version
1600.1
Interactive
Overwrite read-only files
Keep own settings
Remove backup
Show protocol
OK
Save
Cancel

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>"

or

msiexec /i HiCAD.msi SETTINGS="<Ini-Datei>"
In this case the starting will not be "silent", i.e. the installation dialogues wil appear, but with the default values of the .ini file.

3.2 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/de).

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).

3.3 Starting the Installation in the Silent Mode

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

msiexec.exe /i HiCAD.msi /passive

or

msiexec.exe /i HiCAD.msi /qb!-

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/de-de/library/cc759262%28WS.10%29.aspx#BKMK_SetUI
http://msdn.microsoft.com/en-us/library/windows/desktop/aa372024%28v=vs.85%29.aspx

3.4 Example of a Batch Installation incl. Redistributables and Log

```
@set SOURCE=\\entw042\Setups\HiCAD 1700

"%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" /l*v
"%SOURCE%\logs\%COMPUTERNAME%_HiCADInstallLog.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
```

4 Important Technical Information

4.1 Data Compatibility HiCAD/HELiOS 2012 (Version 170X.x)

Please note that no changes are made to the HiCAD data format and the HELiOS standard database within a major release. This means that all patches and service packs of a version (e.g. 1700.x, 170X.x) will use the same data format, and no HELiOS update will be required.

When updating from previous versions please note the following:

Update from version	HELiOS-Update (1)	Changed HiCAD data format (2)
1212.4 or older	X (3)	X
15xx.(x) or older	X	X
1601.(x)	X	X

» Notes:

- 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.
- After updating HELiOS, the database needs to be additionally converted from ANSI to UNICODE character set (for more information see the separate documentation).

4.2 Important Notes on Updates

4.2.1 Carry Out Installation

The installation of version 2012 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 2010 to version 2012: Can be carried out by experienced users with sufficient basics.
- Update of version 2008 (or older) to version 2012: An installation by the ISD is recommended.

» HiCAD with HELiOS

- Update of version 2010 to version 2012: An installation by the ISD is recommended.
- Update of version 2008 (or older) to version 2012: An installation by the ISD is recommended. The update installation includes a data conversion to UNICODE format.

» 3rd party CAD with HELiOS

- Update of version 2010 (or older) to version 2012: An installation by the ISD is recommended.

4.2.2 Licensing

Version 2012 can be obtained either on an installation medium (DVD), or via download from the ISD Homepage.

As of HiCAD/HELiOS version 2010 the activation takes place via a software license. The activation is no longer linked to a dongle, but directly to the hardware of a server or an individual workstation.

If you use a Server License, you need to update the License Server Software and the License Management Tools; if you use Local Licenses, you need to install the new version.

Normally, licenses for older HiCAD/HELiOS versions must be revoked first.

After confirmation of the revocation you will receive one or several Entitlement IDs enabling you, in combination with your E-Mail address and your Password, to activate the new licenses. (see 5.3)

Licenses can be deactivated at any time, without having to contact the ISD Group, via the **License Activator** in the ISD License Manager, i.e. they can be temporarily stored on the Server of the ISD. For this you require your Entitlement ID, your E-mail address and your Password. The activation can then be performed on any other computer, i.e. the licenses can be transferred to this computer. For Server Licenses this procedure can only be performed for the entire license License Pool.

After updating HiCAD and HELiOS (Version 2008 or older) to Version 2012, you must return your workstation dongle to the ISD. You can then no longer use any older HiCAD/HELiOS versions.

4.2.3 CatalogueMaker

The CatalogueMaker is called automatically by the installation program in case of 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".

4.2.4 Computer / User Configuration

A computer configuration for HiCAD settings can be activated in case of a new installation, respectively update.

The “Workstation Parameter Configurator” can be started for a subsequent call by the Administrative Tools of the ISD program group.

Depending on the selection in this window, the settings, saved in the corresponding CSV-file, will be configured. The default CSV-files can be found in the templates directory of the HiCAD installation.

Important:

- The settings files in the templates-directory will be overwritten without further queries in case of an update.
- Company-specific CSV files can be filed in the sys-directory of the HiCAD installation; they can then be selected via the drop-down-list of the computer configuration.
- Activate the HiCAD / HELiOS standard solution only when using the database supplied with HiCAD / HELiOS neXt 2007 or later.
- When updating, the copying of standard masks must be activated only if no customized masks or BOMs are used.

4.2.5 *.KRP to *.KRA Conversion (only relevant for updates from HiCAD neXt 2005 or older)

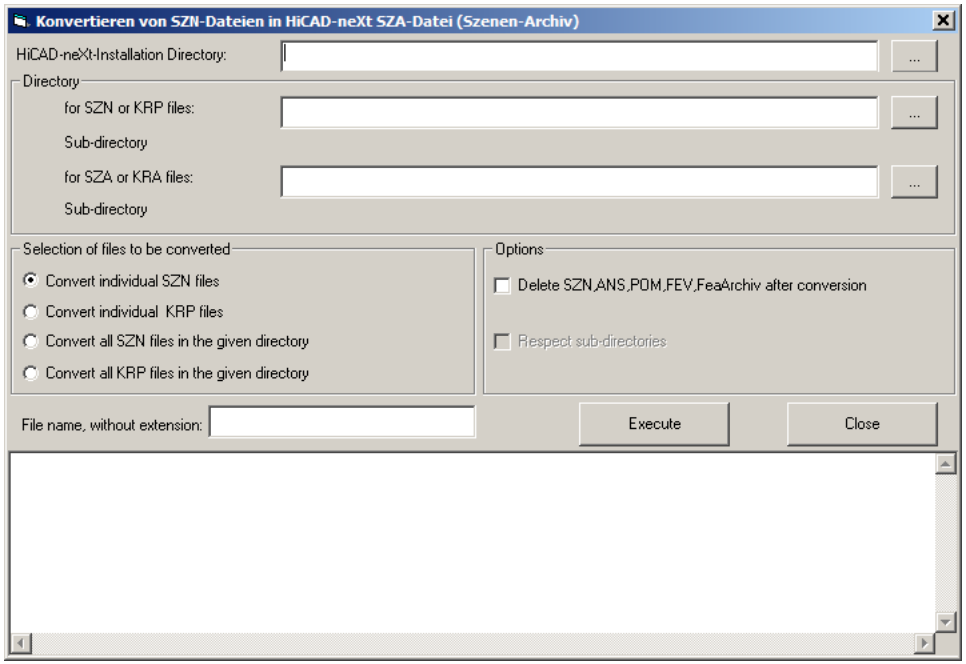
As of HiCAD neXt 2006, the HiCAD 3-D parts (*.KRP and related files) are combined in one archive (*.KRA).

Before making the necessary conversion, you should **save the directories**, where the HiCAD **3-D parts have been saved** (these are usually the paths given for the file groups C:, L: and M: in the FILEGRUP.DAT file; please check further adaptations).

You need the SZN-SZA-Konvertierung.exe program once for the conversion. The program can be found in the \isdtools directory on the HiCAD installation CD.

Copy the UpdateTools directory (with all files and sub directories) to the computer you want to use for the conversion.

Start the SZN-SZA-Konvertierung.exe from this directory. The following window will be shown:



» Enter the UpdateTools directory as the directory of the HiCAD neXt installation.

» Select the directory of the KRP files and the destination directory for the KRA files (these directories may be identical).

» Activate the **Convert all KRP files in given directory** option and decide if KRPs, which are no longer used, are to be deleted in one step and if subdirectories are to be included in the conversion.

The conversion of the given directory will be started after selecting the **Execute** button.

If you need to convert KRP files into different directories, the previous steps need to be repeated accordingly.

We recommend the deletion of the KRP files, in particular when working without HELiOS, as they can still be loaded in HiCAD and can result in different states of KRP and KRA files.

When using HELiOS functions, only KRA files are loaded, the change from KRP to KRA in the database is automatic during the database update with the help of the Helios2toHeliosNext.exe program.

4.2.6 Important Notes on the Modules “Plant Engineering” and “Pipeline Isometry”

HiCAD 2012 introduces a new file format for Plant Engineering parts.

If you have used the modules “3-D Plant Engineering” and “Pipeline Isometry” in the previous HiCAD version, please note the following:

It is assumed that the previous, old HiCAD version was installed at *Y:\hicad* , and the new version will also be located at *Y:\hicad* after the update (*Y* indicates the drive).

1. Before installing the Update, check in the old version the entry at position *6:* in the FILEGRUP.DAT file that is located in the in the HiCAD EXE subdirectory. This entry determines the part directory for HiCAD Plant Engineering.

   Example 1:

   6:\\MyServer\hicad\PlantParts (or *6:\\MyServer\hicad\anlbaut*)

   Here, a network path is specified for the Plant Engineering part directory, i.e. the part directory is located on a different computer. Create a backup copy of this directory.

   Example 2:

   6:X:\hicad\PlantParts (oder *6:X:\hicad\anlbaut*)

   X indicates the drive.

   Create a backup copy of this directory.

   Only if *X* is equal to *Y*, rename the part directory to *Y:\hicad\MyPlantParts*.

If a directory *Y:\hicad\PlantParts* still exists in your old HiCAD version, rename it to *Y:\hicad\PlantPartsOld.*

2. Now perform the **HiCAD Update Installation**. Please do not start HiCAD yet.

3. **After the HiCAD Update Installation:**

   After creating a directory *Y:\hicad\MyPlantParts* as described in Example 2, now rename the directory *Y:\hicad\PlantParts* to *Y:\hicad\PlantPartsOriginal* , and then rename *Y:\hicad\MyPlantParts* to *Y:\hicad\PlantParts* (or *Y:\hicad\anlbaut*)

   In *\hicad\exe\filegrup.dat* at position *6:* re-enter the directory path that was entered there in the old version. Check whether the following subdirectories exist in the part directory that has been entered there:

   CatSearch

   Symbols

   If one (or both) of these subdirectories is missing in the part directory (but only if this is actually the case!), copy it (them) from *C:\hicad\PlantPartsOriginal* to the part directory.

   If *CatSearch* already existed, copy the file **CatDbAttMapping.txt** from the directory *C:\hicad\PlantPartsOriginal\CatSearch* to the subdirectory *CatSearch* of the part directory and overwrite the already existing file.

   Copy the subdirectories

   PartInspect

   TemplateMacro

   VariantStruct

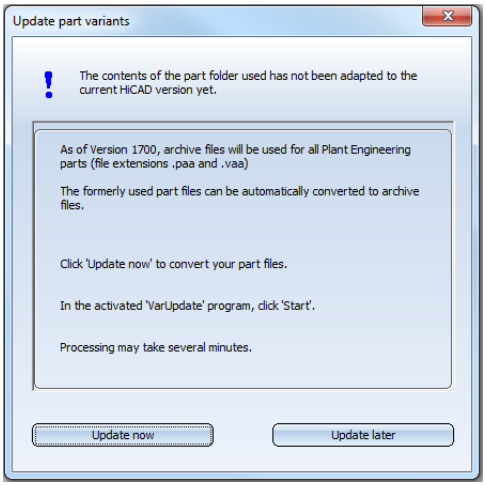
   from *C:\hicad\PlantPartsOriginal* to the part directory and overwrite the already existing files.

4. **Start HiCAD** and perform the update of the Plant Engineering part data as soon as you are prompted to do so by a corresponding dialogue.

4.2.6.1 Automatic update of part files (and database)

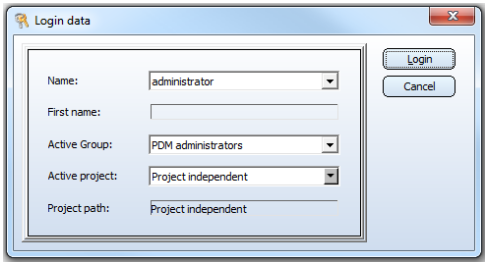
If you have already created your own Plant Engineering parts with an older HiCAD version, you will, of course, want to re-use these parts in newer HiCAD versions. First make sure that you have entered the correct current directory path to your Plant Engineering part files at item 6: in \hicad\exe\FILEGRUP.DAT.

Then start HiCAD. When you now try to load a drawing, or create a new drawing, the following window will be displayed:



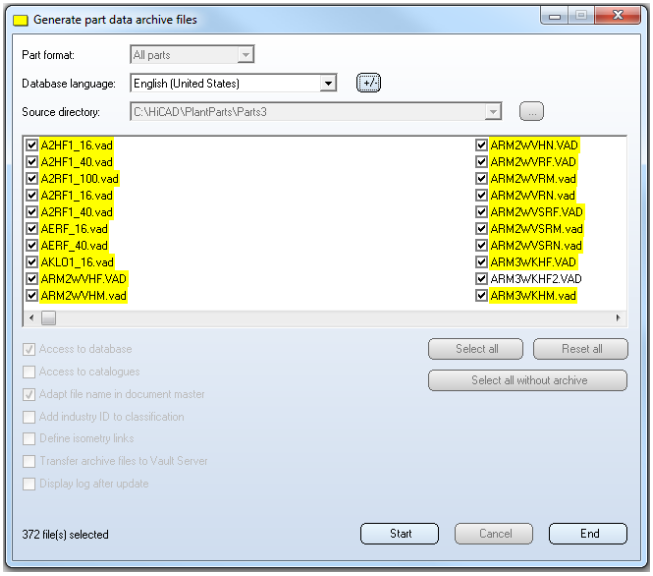
If you do not want to use the Plant Engineering modules right now, click **Update later**, and continue to work with HiCAD as usual. The window will not reappear until the next HiCAD start.

If you want to use HiCAD Plant Engineering, click **Update now.** This will start the tool for the update of your part data. If you use the HELiOS database as part data source, the Login window appears (otherwise, you will be directly taken to the next window):



As you also want to update the database automatically, it is mandatory that you have the necessary write access (rights for the Administration function).

When you click **Login**, the following window appears:



Click **Start**. The update of the part data begins. Depending on the number of existing part files, this process will take 10 – 20 minutes; this time can be significantly longer if the data are transferred via a network. The updating was successful if an archive file could be generated for all parts with part master data (or catalogue entry, respectively, in case of the Catalogue as part data source). For all other parts, too, an archive file will be created if possible. If the updating was not successful, an error log will be displayed, indicating for each part whether or not an archive file could be successfully generated.

If the database is the part data source, the following changes will be made to the database, in addition to the update of the files:

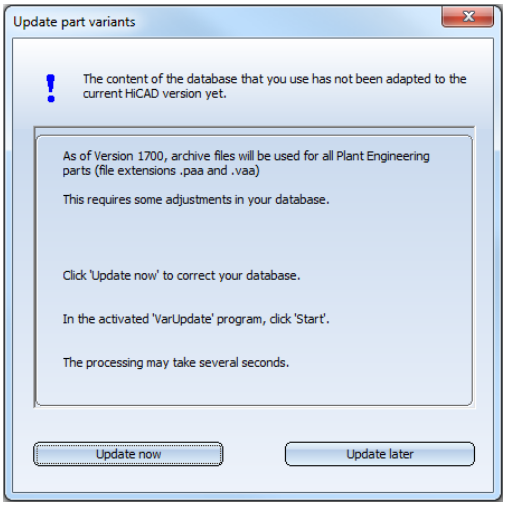
- In the document masters of the Plant Engineering parts, the file names will be modified, i.e. the extension .vad will be replaced with .vaa, and the extension .kra will be replaced with .paa.
- The superordinate classes used for part classification obtain an ID, the so-called “industry ID”. (10001 for the class Plant Engineering, and 10002 for the class Air ducts).
- The link definitions required for pipeline isometry will be entered (pipeline isometry and pipeline layout plan).
- If a Vault Server exists and is activated, the archive files will be moved to the Vault Server. The files can then no longer be accessed via the Windows file system.

After the update, click **End** and re-start HiCAD. Your parts are now available in HiCAD Plant Engineering.

4.2.6.2 Auto-synchronisation of the database

If you have not used an earlier HiCAD version and install HiCAD for the first time, the part files will directly be available in the new archive file format. It is however possible that the installed HELiOS database still needs to be adjusted accordingly.

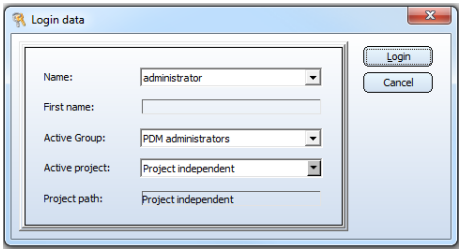
If this is the case, the following window will be displayed when you try to load a drawing, or create a new drawing:



If you are currently not working with the HiCAD Plant Engineering modules, click **Update later**, and continue to work with HiCAD as usual. This window will not reappear until the next start of HiCAD.

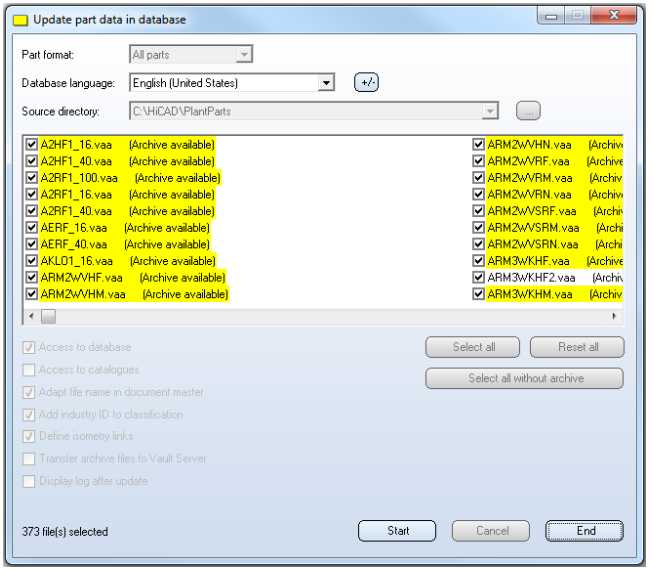
If you want to use HiCAD Plant Engineering, click **Update now**. This will start the tool for the update of your database.

First, the following Login window will appear:



It is mandatory that you also obtain the necessary write access when you log in (rights for the **Administration** function).

After you have logged in, the following window appears:



Click **Start**. The update of the database begins. Depending on the number of existing part files, this process will take 15 – 30 seconds; this time can be significantly longer if the data are transferred via a network.

The following changes will be performed in the database:

- In the document masters of the Plant Engineering parts, the file names will be modified, i.e. the extension .vad will be replaced with .vaa, and the extension .kra will be replaced with .paa.
- The superordinate classes used for part classification obtain an ID, the so-called “industry ID”. (10001 for the class Plant Engineering, and 10002 for the class Air ducts).
- The link definitions required for pipeline isometry will be entered (pipeline isometry and pipeline layout plan).
- If a Vault Server exists and is activated, the archive files of the parts will be moved to the Vault Server. The files can then no longer be accessed via the Windows file system.

After the update, click **End** and re-start HiCAD. Your parts are now available in HiCAD Plant Engineering.

4.2.7 Update Training

ISD now offers a 2-day Update Training for new versions. Further information on training dates can be found on the attached form or our website: www.isdgroup.eu / News & Press Services / Training.

5 Licensing (Version 2012)

HiCAD/HELiOS can be activated via three license types:

- Network licenses
- Standalone licenses (local licenses)
- Commuter licenses

In the HiCAD 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\Licensemanager.

5.1 General Information about Licensing

5.1.1 Local (Workstation-Specific) Licensing

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.

5.1.2 Network (Server-Controlled) Licensing

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.

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.

A static IP address is required for correct operation of the license server!

5.1.3 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.

For computers possessing a WLAN card: Please switch off the WLAN card before executing the Get Identification Code command!

If you activate a license while the WLAN card is switched on, this license will only be valid and visible when the WLAN card is switched on. If, however, the license is activated while the WLAN card is switched off, the license will always be valid, no matter whether the WLAN card is switched on or off.

As of Version 1701 the activation status of the WLAN card will no longer be relevant.

5.2 Network Licenses

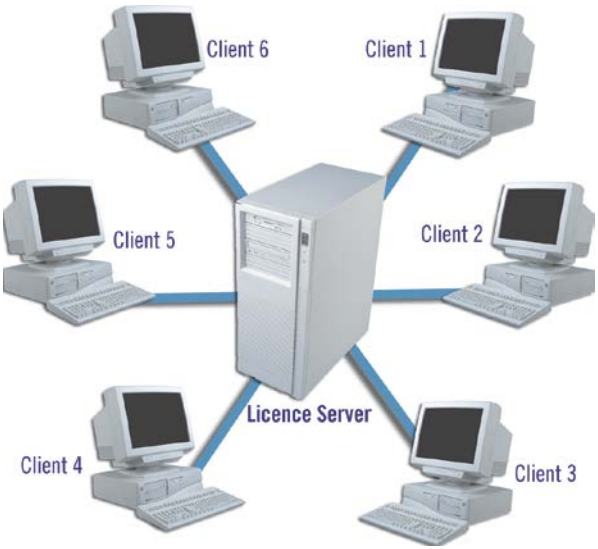
To be able to use network licenses, a License Server needs to be installed on a computer without HiCAD/HELiOS.

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 installations 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). As of Version 1700 such scenarios can be realised in a much more convenient manner with a new licensing procedure.

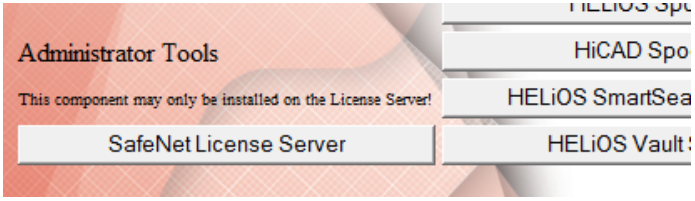
Please note:

- **As of Version 1700, parallel installations of license servers and ISD products (i.e. 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 a correct operation of the License Server!**

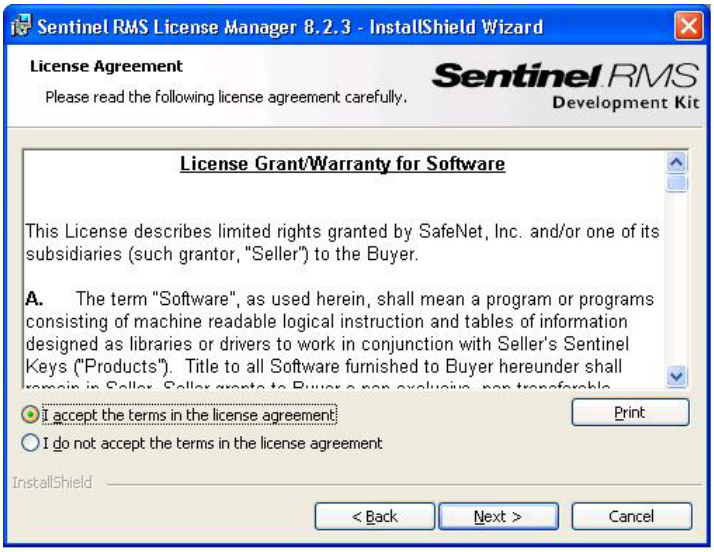


5.2.1 Server Installation

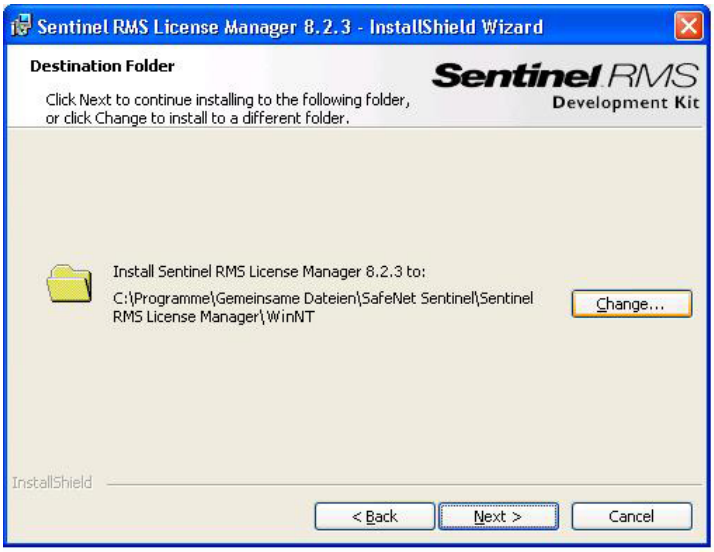
The **SafeNet License Server** is installed from the HiCAD DVD. Start Windows. If Windows is already open, close all other applications. Insert the DVD in the DVD drive. The installation wizard will be started automatically. In the installation wizard, click the **Standard Edition** button, which opens a mask with various selection options for software components.

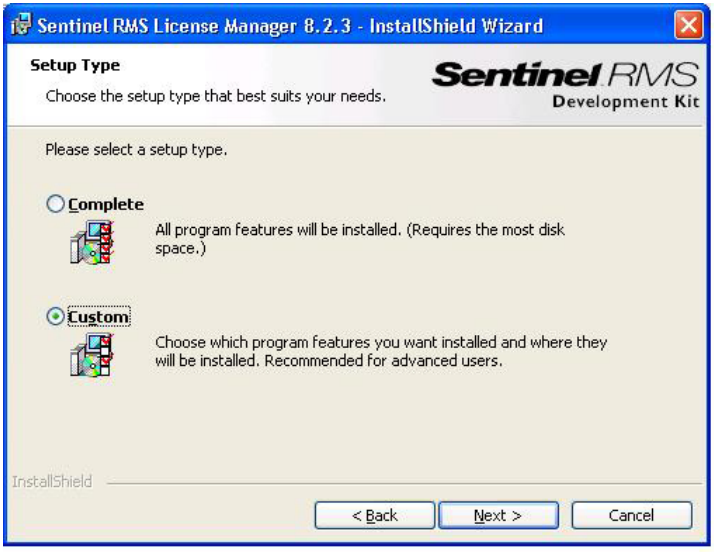


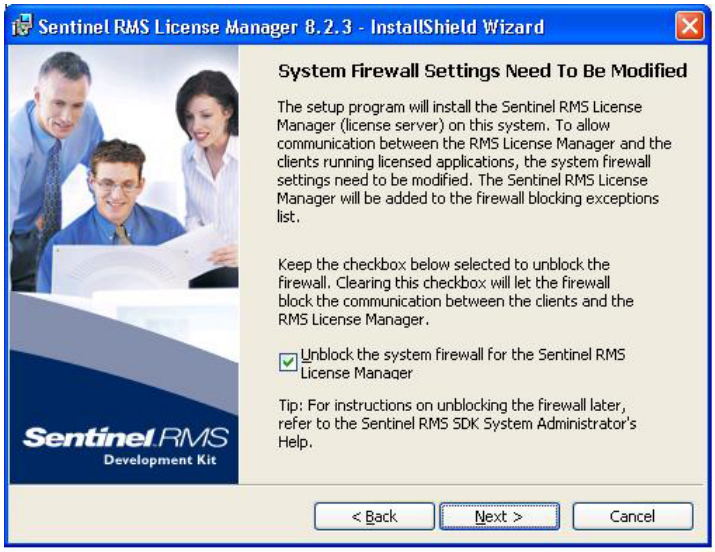
Click the **SafeNet License Server** button to start the installation.

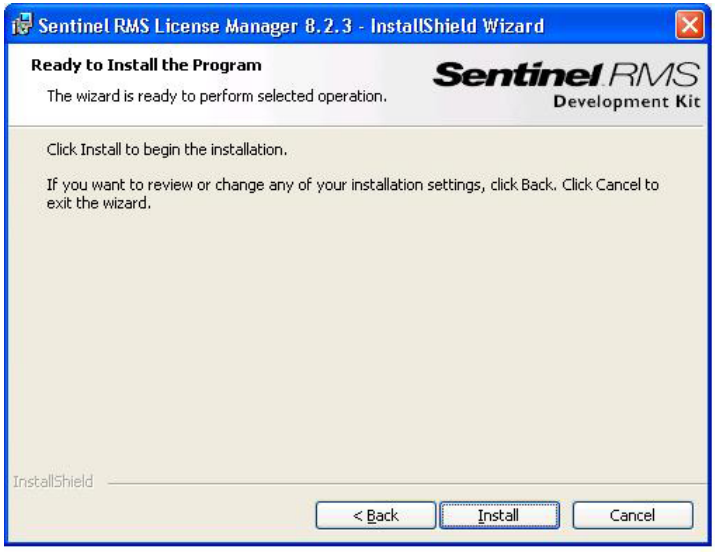

Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Sentinel RMS
Development Kit
License Grant/Warranty for Software
This License describes limited rights granted by SafeNet, Inc. and/or one of its subsidiaries (such grantor, "Seller") to the Buyer.
A. The term "Software", as used herein, shall mean a program or programs consisting of machine readable logical instruction and tables of information designed as libraries or drivers to work in conjunction with Seller's Sentinel Keys ("Products"). Title to all Software furnished to Buyer hereunder shall
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

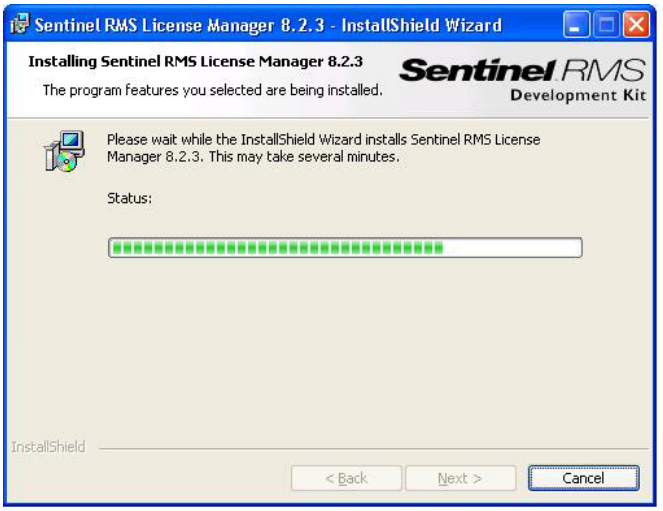
Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
Customer Information
Please enter your information.
Sentinel RMS
Development Kit
User Name:
username
Organization:
Install this application for:
Anyone who uses this computer (all users)
Only for me (smichin)
InstallShield
< Back
Next >
Cancel


Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
Destination Folder
Click Next to continue installing to the following folder, or click Change to install to a different folder.
Sentinel RMS
Development Kit
Install Sentinel RMS License Manager 8.2.3 to:
C:\Programme\Gemeinsame Dateien\SafeNet Sentinel\Sentinel RMS License Manager\WinNT
Change...
InstallShield
< Back
Next >
Cancel


Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
Sentinel RMS
Development Kit
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

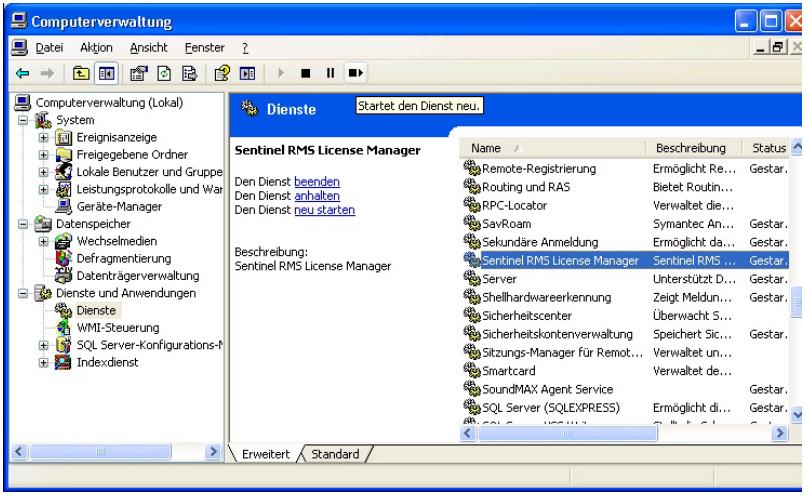

Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
System Firewall Settings Need To Be Modified
The setup program will install the Sentinel RMS License Manager (license server) on this system. To allow communication between the RMS License Manager and the clients running licensed applications, the system firewall settings need to be modified. The Sentinel RMS License Manager will be added to the firewall blocking exceptions list.
Keep the checkbox below selected to unblock the firewall. Clearing this checkbox will let the firewall block the communication between the clients and the RMS License Manager.
Unblock the system firewall for the Sentinel RMS License Manager
Tip: For instructions on unblocking the firewall later, refer to the Sentinel RMS SDK System Administrator's Help.
Sentinel RMS
Development Kit
< Back
Next >
Cancel


Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
Ready to Install the Program
The wizard is ready to perform selected operation.
Sentinel RMS
Development Kit
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel


Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
Installing Sentinel RMS License Manager 8.2.3
The program features you selected are being installed.
Sentinel RMS
Development Kit
Please wait while the InstallShield Wizard installs Sentinel RMS License Manager 8.2.3. This may take several minutes.
Status:
InstallShield
< Back
Next >
Cancel

Sentinel RMS License Manager 8.2.3 - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Sentinel RMS License Manager 8.2.3. Click Finish to exit the wizard.
Sentinel RMS
Development Kit
< Back
Finish
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.



5.2.2 Client Configuration

To ensure that the HiCAD/HELiOS Client finds 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.

5.3 Licensing via Entitlement ID (License Activator)

Thanks to the enhanced ISD License Manager 2.0 the communication between the customer and the ISD could be facilitated significantly.

5.3.1 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 2012 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

EID:	2ddbc643-343e-4ec4-aed4-7bd5bc44cfe1	Start Date:	01/18/2012
Customer:		End Date:	Never Expires
Contact:	musterfrau@isdgroup.de		

Associated Products

Product number	Quantity	Remaining quantity	Start Date	End Date	Status
E102SOL1001 1700.0	2	2	01/18/2012	03/31/2012	Enabled
E107BIB1001 1700.0	2	2	01/18/2012	03/31/2012	Enabled
E130SMB1001 1700.0	2	2	01/18/2012	03/31/2012	Enabled
MasterLic 1700.0	2	2	01/18/2012	03/31/2012	Enabled

Now, follow the steps given below to activate and manage your entitlement:
1. Start ISD License Manager 2.0.
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 activat.
5. Click on Activate button.

For further assistance, contact us using the following details:
Contact No. - Tel. +49-(0)231-9793-166
Email - hotline@isdgroup.de

Sincerely,
ISD Software und Systeme GmbH Team

© 2012 ISD Software und Systeme GmbH, All Rights Reserved

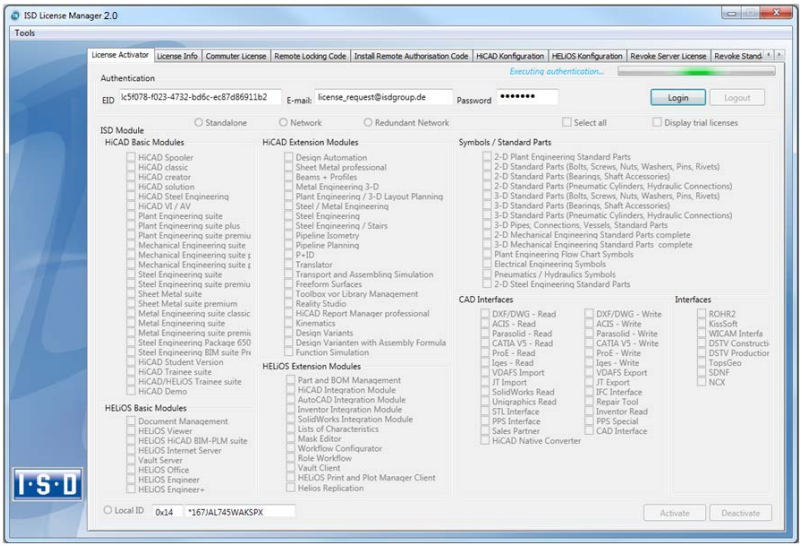
Please keep the Entitlement ID! Without this number you cannot activate or deactivate licenses. In case of a system crash a reconstruction of the licenses cannot take place without the Entitlement ID!

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).

To activate/deactivate Network Licenses, always start the ISD License Manager (x32 Server) via the Windows Start menu: Select Start > All programs > ISD Software und Systeme GmbH > Administration.

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.



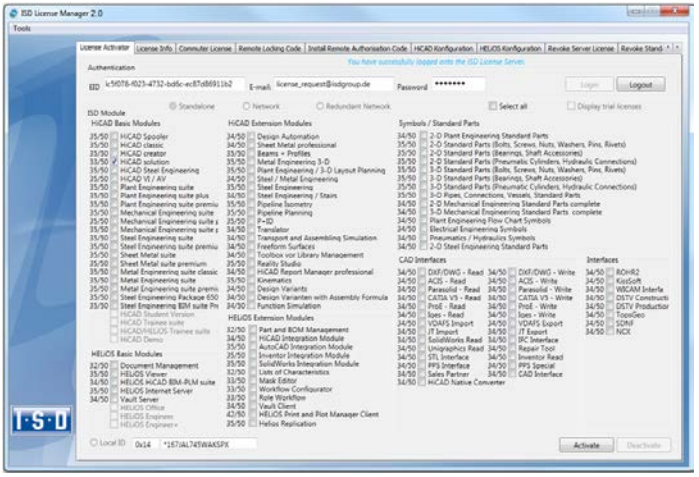
After entering the data, click **Login**. The ISD License Manager 2.0 connects to the ISD License Server and the acquired licenses will be displayed.

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

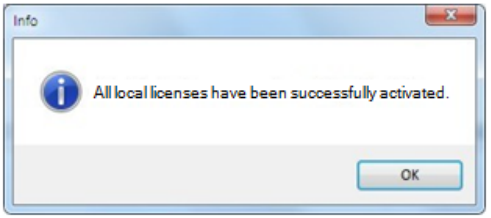
5.3.2 Activate Licenses

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 start working 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**.

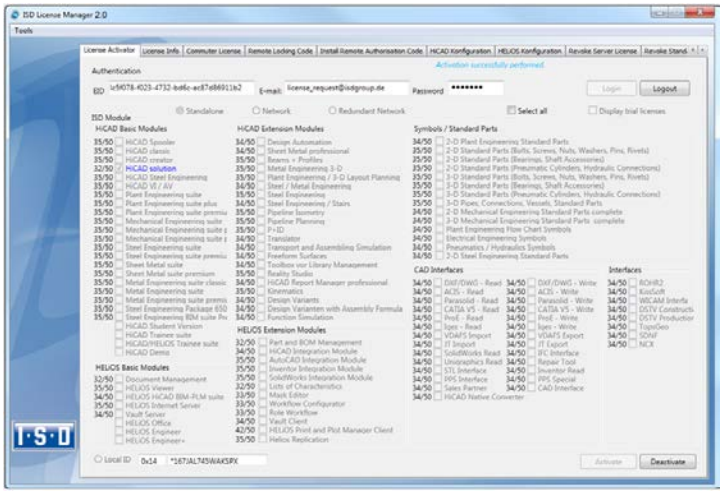
5.3.3 Deactivate Licenses

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 XP to Windows 7)
  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.

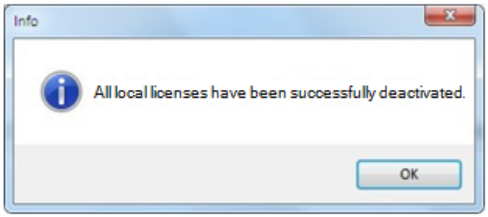
After starting the ISD License Manager 2.0 the activated modules will be highlighted in a different colour. Click the **Deactivate** button to revoke the activation of the modules.



A selection is not possible, as you need to deactivate all modules, no matter whether local licenses or network licenses.

The deactivation must not be disrupted, e.g. by a logout or the closing of ISD License Manager 2.0!

After successful deactivation the following message will be displayed:



5.3.4 Trial Licenses

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

5.3.5 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 4.2.3.3 Deactivate Licenses).

5.3.6 Notes Regarding 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.

As of Version 1701 the activation status of the WLAN card will no longer be relevant.

5.4 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:

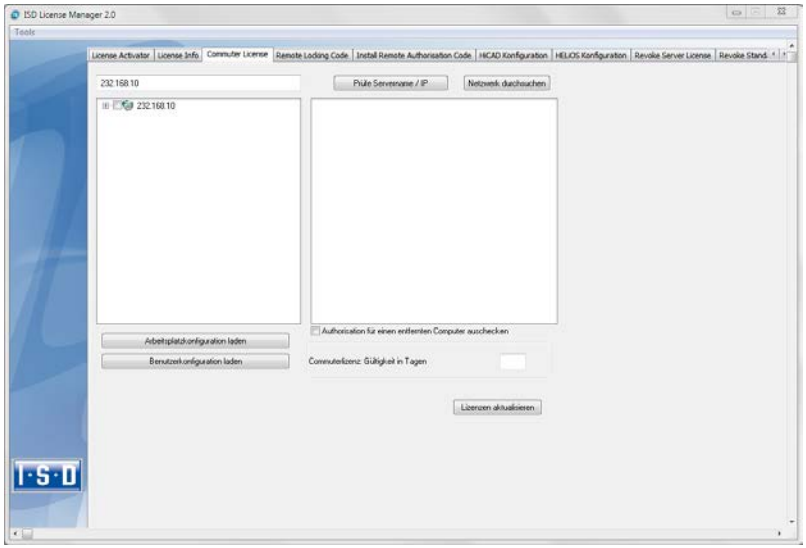
» Via direct checkout from the License Server

» Via checkout from License Server, without network connection

To activate/deactivate Network Licenses, Network Licenses always start the ISD License Manager (x32 Server) via the Windows Start menu: Select Start > All programs > ISD Software und Systeme GmbH > Administration.

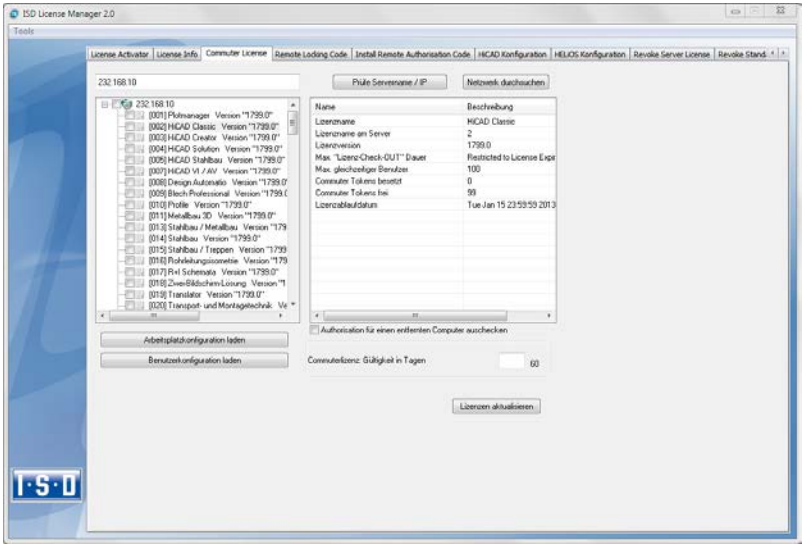
5.4.1 Direct Checkout from License Server

Start the **ISD License Manager (x32 Server)** application (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 is displayed at start-up as pre-selection. Use the **Search network** button to automatically search for License Servers.

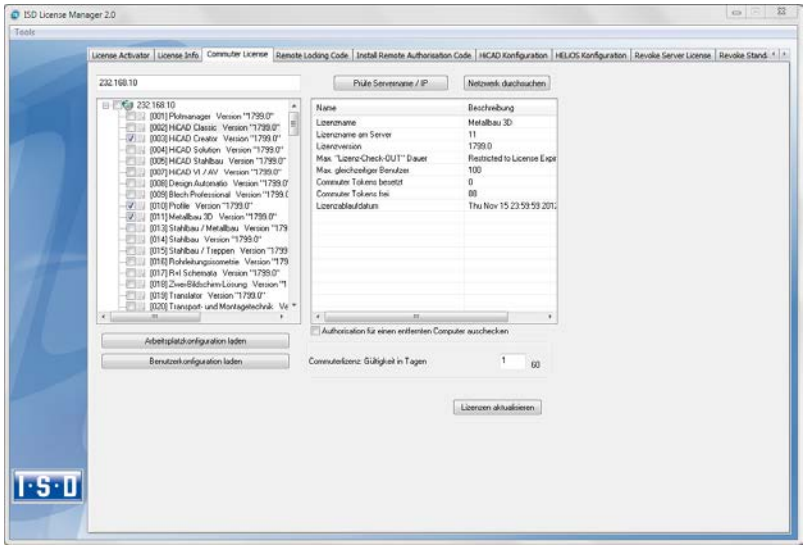
Expand the tree structure of the found Server by a click on the "+"-sign. The result looks as follows:



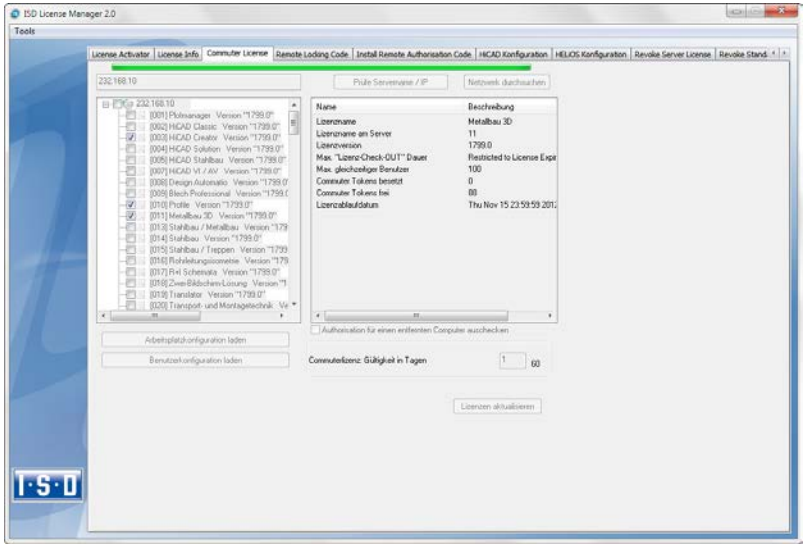
Select the required licenses by activating the corresponding checkboxes on the left hand side. On the right hand side, information on the selected license is displayed.

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.

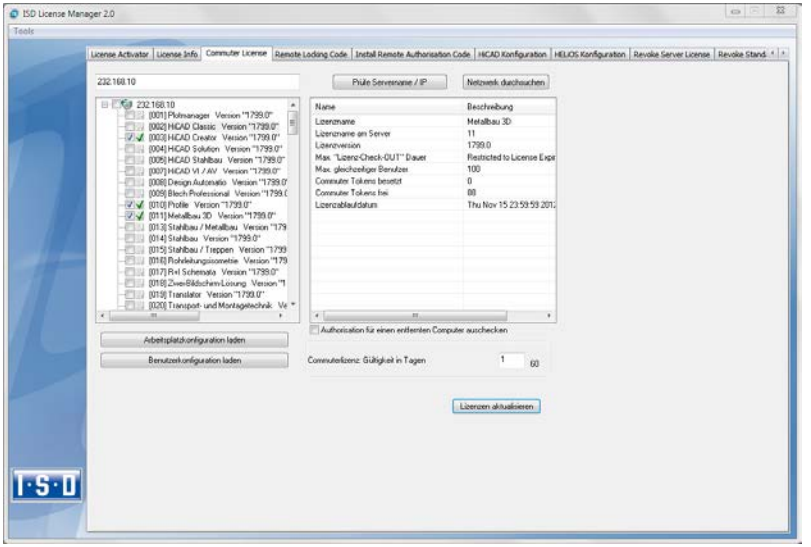
For reasons of safety you should check out the licenses only for the required period! If a commuter license is lost, e.g. because of theft or a defect of the client computer, the license on the Server cannot be used any more before expiry of this date!



After entering the expiry date for the commuter licenses, activate the **Update licenses** button.

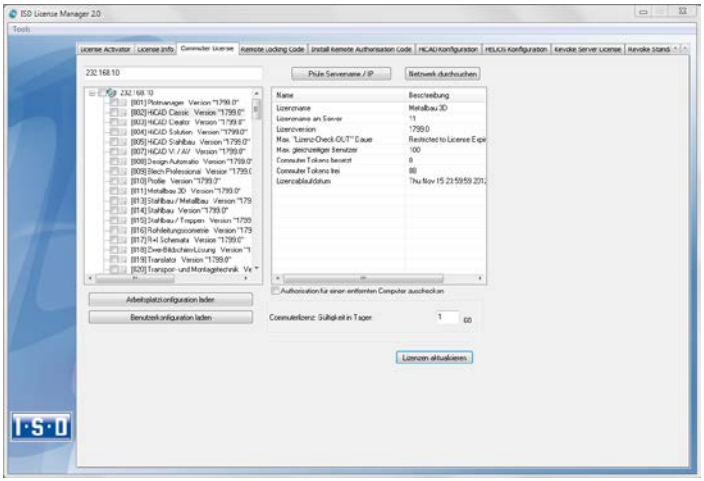


Commuter licenses are checked out from the Server.



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 net.

You can however also return the commuter licenses before their expiry date. To do this, you need to deactivate the checkboxes on the left hand side 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.



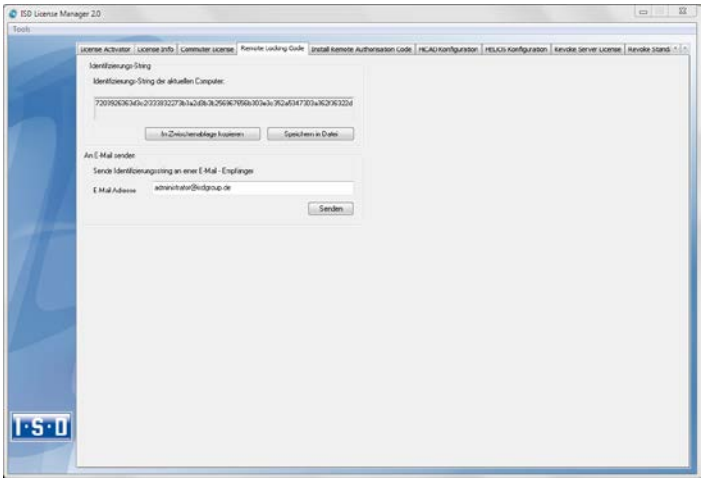
5.4.2 Checkout from License Server, Without Network Connection

Commuter licenses can also be drawn from the License Server without an existing network connection.

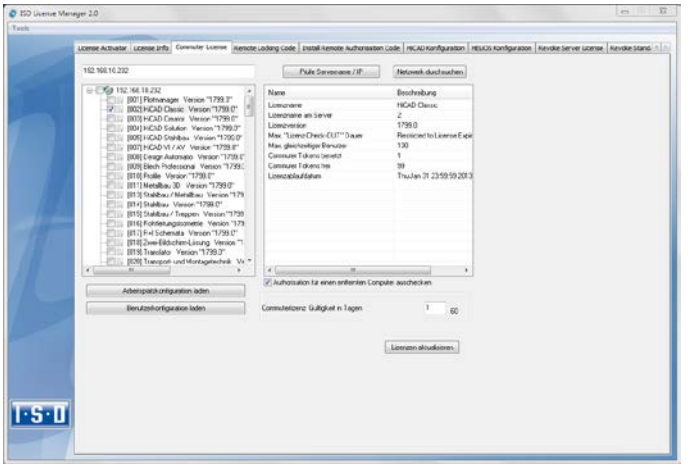
Please note that administrator rights are required.
Commuter licenses checked out in this way cannot be returned to the License Server! This means that the commuter licenses that have been checked out from the Server are only (automatically) made available again after their expiry date.

Several steps are required for this, by the administrator having a network connection to the License Server, as well as by the Client having no network connection to the License Server.

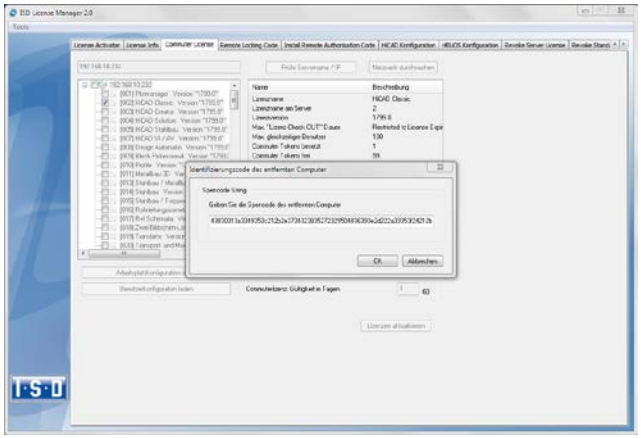
The Client starts the **ISD License Manager** tool, switches to the **Remote Locking Code** tab and sends the generated character set to the administrator (via E-mail or over the phone).



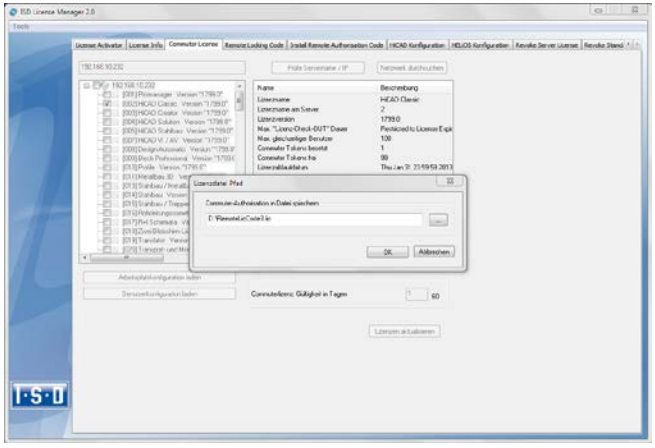
The administrator starts the **ISD License Manager (x32 Server)** and switches to the **Commuter License** tab. The License Server is selected, and the required licenses (modules) are activated in the left window. To checkout a remote commuter license the administrator now needs to activate the **Check out authorisation for remote computer** checkbox.



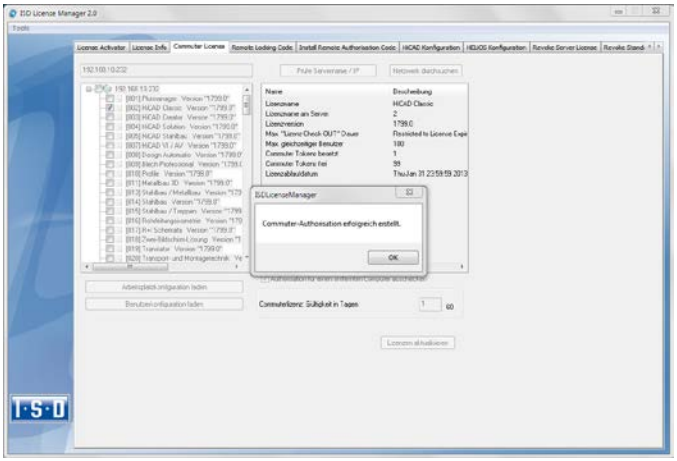
A click on the **Update licenses** button opens a new dialogue window, in which the administrator enters the character set received from the Client.



After selecting **OK**, another dialogue opens, in which you enter the target path and the file name for the licenses to be swapped out.

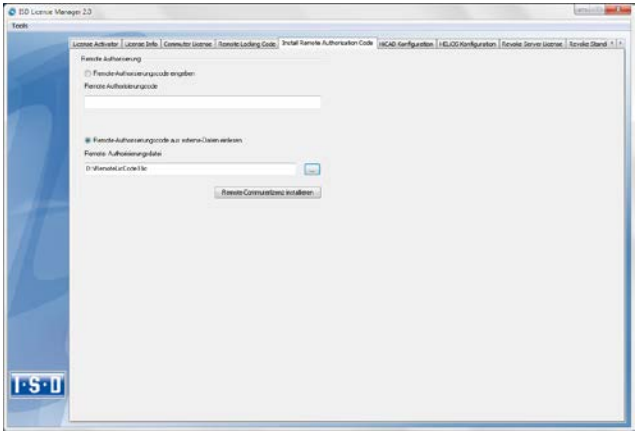


Select **OK** to check out the commuter licenses from the License Server and swap them out to a file, e.g. RemoteLicCode.lic.



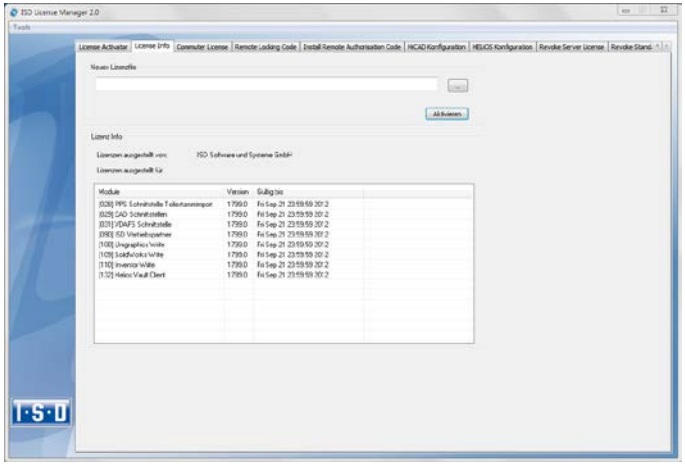
The successful checkout will be confirmed. The administrator then sends the file, RemoteLicCode.lic, to the Client.

After receiving the file with the commuter licenses, the Client starts the **ISD License Manager (x32 Server)** again and activates the **Install Remote Authorisation Code** tab. Here the received commuter licenses can be installed directly via file selection or via copying of the file contents.



Click the **Install...** button to install the commuter licenses on the Client.

After successful installation, switch to the License Info tab. Press the F5 (Update) key on your keyboard. You are now informed which licenses are installed locally on the computer.

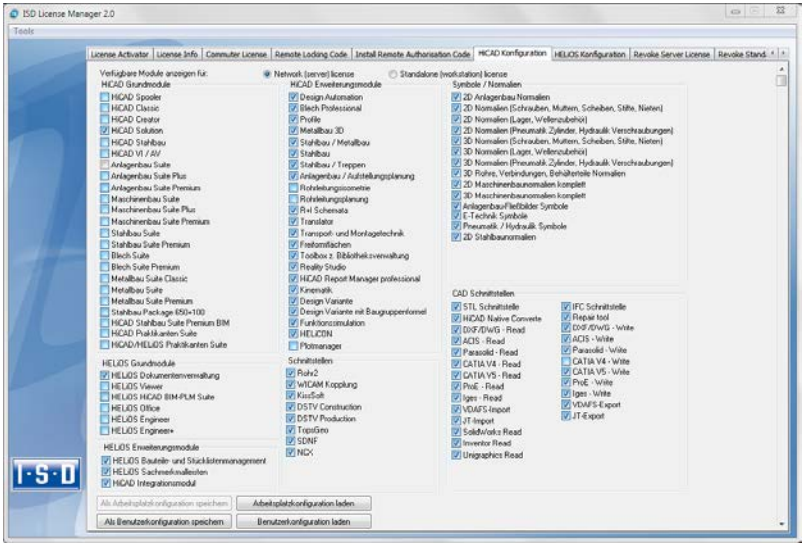


5.5 License Configuration

Some cases may require the use of only certain specific licences on a computer. Example: On the License Server, HiCAD creator and HiCAD solution licences are available. On one Client, HiCAD is to be started with a HiCAD creator license, on another Client, HiCAD is to be started with a HiCAD solution licence. 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.

5.5.1 License Configuration HiCAD



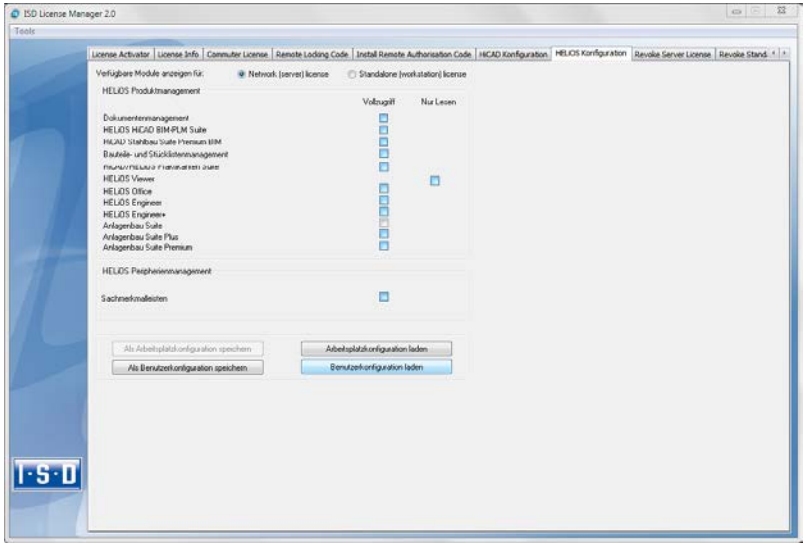
On the **HiCAD Configuration** tab of the **ISD License Manager** tool you have the option to save a workstation or user configuration for individual Clients.

» **Save as workstation configuration:** This configuration will be saved for all users of this computer. When HiCAD 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 is started, the selection window with the saved configuration is always displayed.

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

5.5.2 Licence Configuration HELiOS



On the **HELiOS Configuration** tab of the **ISD License Manager (x32 Server)** 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 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 HELiOS is started, the selection window with the saved configuration is always displayed.

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

5.6 Important Softlock/Hardlock Information

When using the softlock/hardlocks as selector for the license file, please note that for system-inherent reasons the date must not be reset! Such resetting causes a blocking of the softlock/hardlock that can only be revoked by the ISD by means of a re-programming. In such cases, we would have to charge you the costs of this unnecessary additional work.

A change of the system time is possible, as long as it is not date-comprehensive.

If you deem such date conversion absolutely necessary, please inform our staff on the hotline in good time.

ISD Software und Systeme GmbH

Phone: 0049 - 231 / 97 93 - 166

Fax: 0049 - 231 / 97 93 - 101

Mailto: hotline@isdgroup.de

IMPORTANT: If you have a 64Bit version of HiCAD/HELiOS, the hardlock can no longer be used as license file selector due to missing driver support!

5.7 Theft of a Workstation

The user is responsible for appropriately insuring the HiCAD/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.

6 Licensing (Version 2011)

As of HiCAD 2012, the licensing procedure should only be performed as described in Paragraph 4.

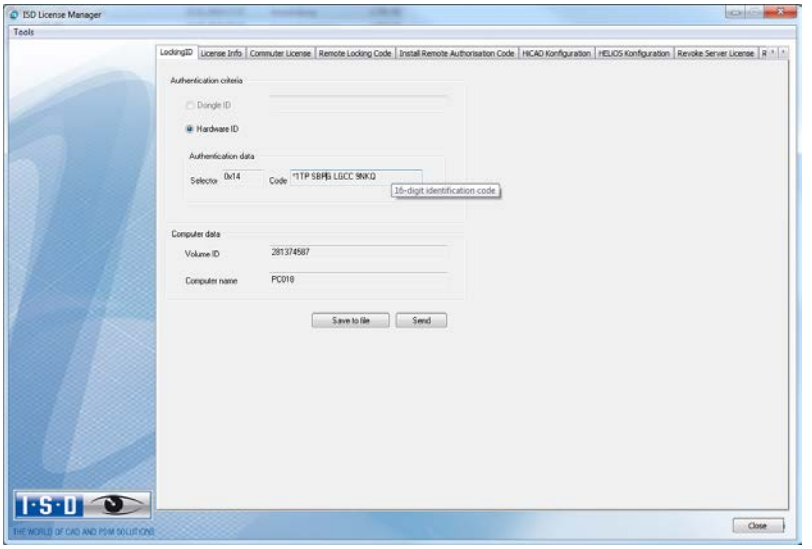
For compatibility reasons, the following paragraph describes the procedure that is applied to Version 2011 and differs from the new procedure.

6.1 Generate Identification Code and Send to ISD

To generate the identification code, activate the Windows Start menu and select All Programs > ISD Software und Systeme > Administration > ISD License Manager (x32 Server).

For computers possessing a WLAN card: Please switch off the WLAN card before executing the Get Identification Code command!

If you activate a license while the WLAN card is switched on, this license will only be valid and visible when the WLAN card is switched on. If, however, the license is activated while the WLAN card is switched off, the license will always be valid, no matter whether the WLAN card is switched on or off. As of Version 1701 the activation status of the WLAN card will no longer be relevant.



On the first tab you will find all information required for the generation of a new license. Click the **Send** button to automatically generate an E-mail with all necessary information. The E-mail will be opened with your standard E-mail program, enabling you to add your own message if desired. Alternatively, you can save these data to a text file and e-mail them to ISD Software und Systeme GmbH.

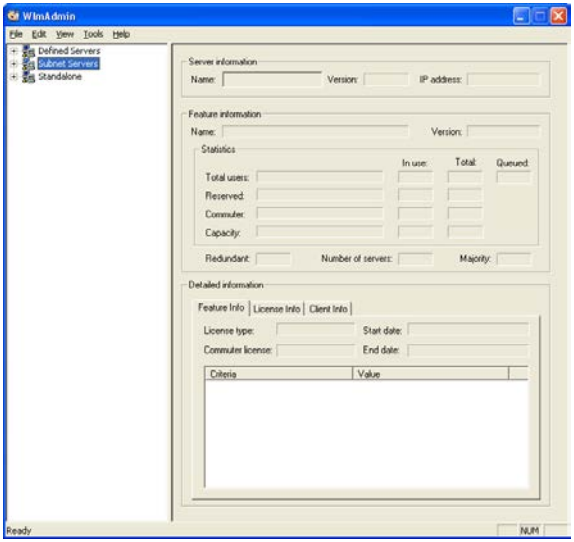
You can also send the **Selector** and **Code** keys back to ISD Software und Systeme GmbH by post. Please note however that this procedure will delay the licensing.

Based on the keys, a license for your computer will be generated and e-mailed to you.

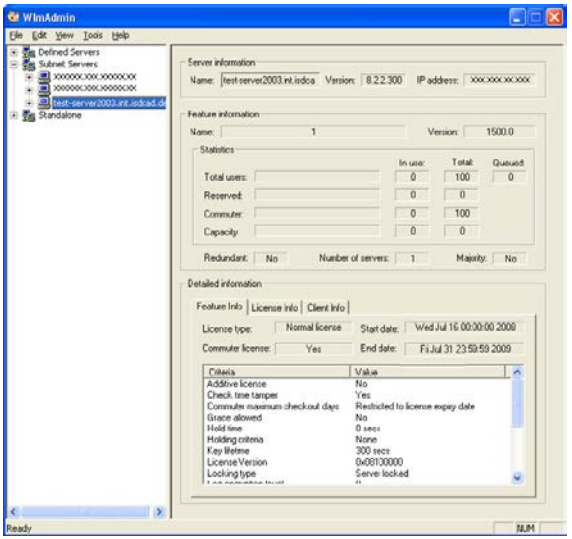
You will receive from the ISD Software und Systeme GmbH a self-executing license file (when it is sent by E-mail, the name of the file is [filename].**ex_** ; it needs to be renamed to [filename].**exe** before execution). Double-click to execute the license file. Please note that administrator rights are required for this.

After successful unpacking, the License Server is re-started automatically.

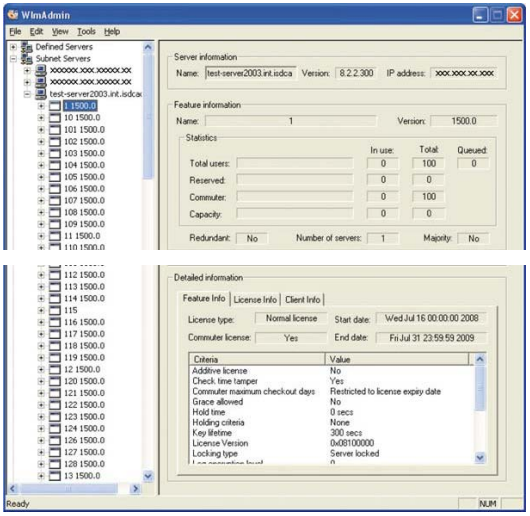
Use the **License Server Monitor** tool to check the installed files.



Expand the tree structure of the **Subnet Servers** entry to display all License Servers on your network.

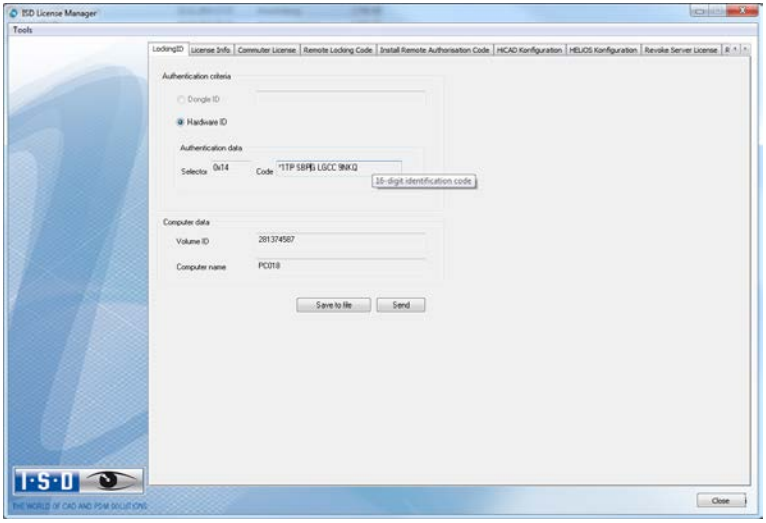


Then expand the tree structure of the installed Server (test-server2003.int.isdcad.de). All licenses installed and managed on the License Server are displayed.



6.2 Local Licenses

Local licenses are generated for a particular computer. To do this, activate the Windows **Start** menu and select **All Programs** > **ISD Software und Systeme** > **Administration** > **ISD License Manager (x32 Server).**



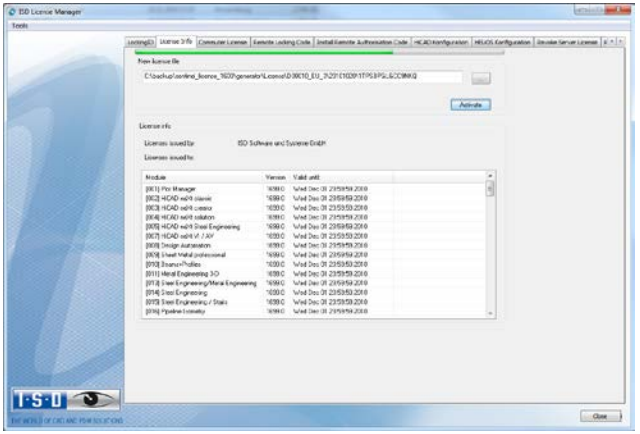
Click the **Send** button to automatically generate an E-mail with all necessary information. The E-mail will be opened with your standard E-mail program, enabling you to add your own message if desired. Alternatively, you can save these data to a text file and e-mail them to ISD Software und Systeme GmbH.

You can also send the **Selector** and **Code** keys back to ISD Software und Systeme GmbH by post. Please note however that the sending by E-mail is significantly faster.

Based on the keys, a license for your computer will be generated and e-mailed to you.

You will receive from the ISD Software und Systeme GmbH a self-executing license file (when it is sent by E-mail, the name of the file is [filename].**ex_** ; it needs to be renamed to [filename].**exe** before execution). Double-click to execute the license file. Please note that administrator rights are required for this.

The licenses are now unpacked and activated. After successful installation, the local licenses can be viewed on the **License Info** tab of the **ISD License Manager (x32 Server)**.



Press the F5 key to update the list of licenses.

6.3 Revoke Network Licence for Hardware Component Exchange

If you want to use a different computer as license server, or exchange hardware components (hard disk, graphic card, motherboard etc.) on the license server, the network licenses need to be revoked (i.e. locked) before the exchange. For this, the following requirements need to be fulfilled:

- Administration tools need to be installed on the License Server.
- All licenses on the network server need to be unlocked again. Please make sure that no application using these network licenses is running.
- All commuter licenses need to be checked in again.
- The License Server (service) must be running.

The revocation must take place before the exchange of hardware components. If the hardware is irreparably damaged, please contact the ISD Hotline (Email: hotline@isdgroup.de, Phone: 0049 - 231 9793 166).

Now carry out the following steps:

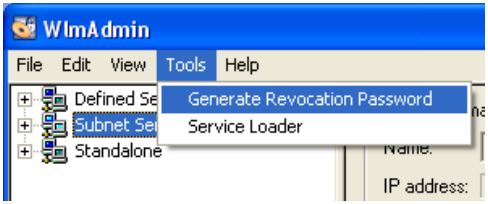
Step 1 – Generate Revocation Password File

To prevent the revocation of network licenses by unauthorized persons, a corresponding password file is required, which is generated with the help of the License Monitor tool. Only persons knowing the password are granted the rights for the revocation of their network licenses.

To generate the password file, proceed as follows:

- Open the ISD License Manager (x32 Server). Select Tools > License Monitor (WlmAdmin.exe).

» Select **Tools > Generate Revocation Password**.



The following dialogue is displayed:

» Enter the desired password (at least 8, but not more than 32 characters). **Please do not forget this password!** Without the password you cannot revoke your network licenses!

» Click **Generate**. The program prompts you to specify the storage location for the password file.

» Select a location and click **Save**. The password file will be saved, with the file name **sntlpassword.dat**, to the selected folder. Please note that the file name must not be changed. Do not forget this storage location, as the file needs to be copied to another folder at a later time.

Step 2 – Copy Password File to Working Directory of License Server

After generating the password file **sntlpassword.dat**, copy the file to the installation directory of the license server, if you have not already selected the directory when saving the file.

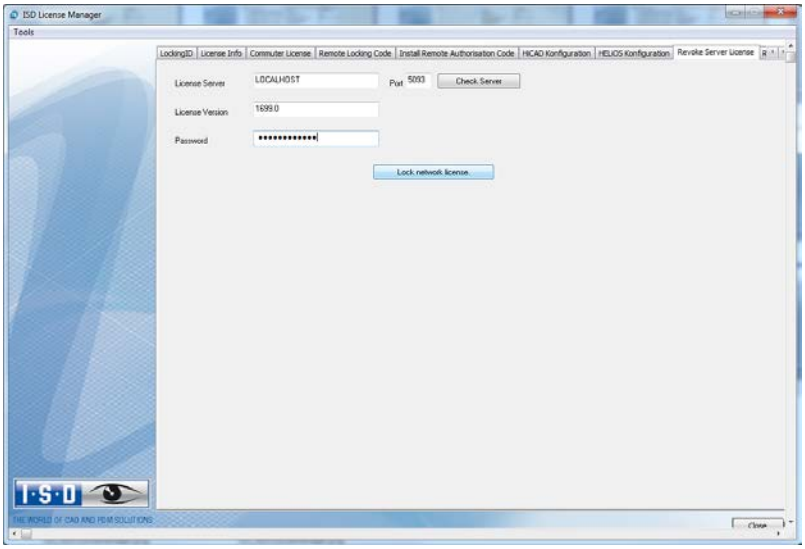
Default paths are as follows:

- **Windows XP 32 Bit**
  <OS Drive >:\Program Files\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\WinNT
- **Windows 7 32 Bit**
  <OS Drive >:\Program Files\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\WinNT
- **Windows 7 64 Bit**
  <OS Drive >:\Program Files(x86)\Common Files\SafeNet Sentinel\Sentinel RMS License Manager\WinNT

Step 3 – Revoke Network Licenses

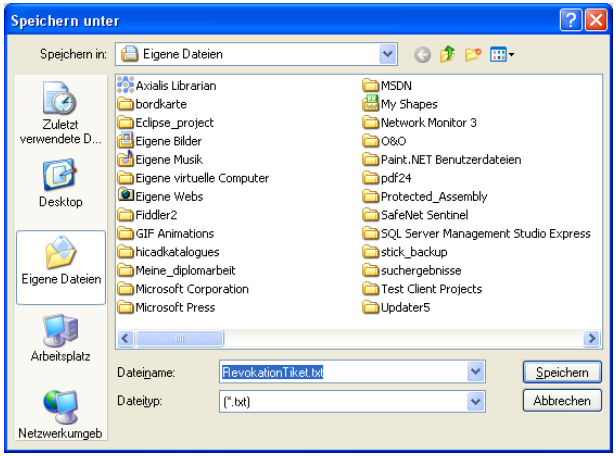
Please note that licenses can directly be revoked from a license server or from a client.

- Start the ISD License Manager (x32 Server) tool. Open the Revoke Server License tab.
- Enter the name of the server (LOCALHOST) on which you want to revoke the licenses.
- Enter the port number of the license server (Default: 5093). You can use the **Check Server** button to check your entries.
- Enter the number of the license version that you want to revoke. The version number can be checked in the License Monitor: Expand the Subnet Servers level containing the license server structure. The first number stands for the module number, the second number for the license version.
- Now enter the password. If you forgot your password, please repeat steps 1 and 2.



» Click the Revoke network license button.

» Select a storage location for the so-called "Revocation Ticket" file. The ISD requires this file for checking purposes and granting of new licenses.



» An appropriate message will be issued, telling you whether the revocation was successful or not.

» Finally, send the revocation ticket to the E-mail address license_request@isdgroup.de.

Step 4 – Send Revocation Ticket File to ISD Software und Systeme GmbH

» Send the Revocation Ticket to license_request@isdgroup.de.

Step 5 – Install License Server Software on New Server Computer

The installation of the new License Server software and the detection of the new hardware ID on the new license server computer can take place before, at the same time of or after the revocation on the old computer.

The sending of the license file for the new Server can, however, only take place after receipt and verification of the revocation file for the old computer. All Server Licenses created after 1 August 2010 will therefore remain valid and utilisable for 4 days after revocation.

6.4 Revoke Local License for Hardware Component Exchange

To revoke a local license for hardware component exchange, or for the transfer to another computer, the following preconditions must be fulfilled:

» The revocation must take place before the hardware component exchange. If the hardware is irreparably damaged, please contact the ISD Hotline (Email: hotline@isdgroup.de, Phone: 0049 - 231 9793 166).

» You must be logged with administrator rights on the computer on which the revocation is to be performed.

» The HiCAD and HELiOS programs on the local computer must be closed.

Step 1 – Revoke Local License

» To revoke a local license, activate the Windows Start menu and select **All programs** > **ISD Software und Systeme** > **Administration > License Manager (x32 Server)**. Activate the **Revoke Standalone License** tab.

For operation systems with user account control please execute the program by right-clicking and selecting **As Administrator**; otherwise the functionality is greyed out.

» In the **LockLicense** program, the **HiCAD/HELiOS License** option must be activated, then select the appropriate option for license revocation; in the **License Manager** no further selection will be required, you can immediately click the **Revoke license** button.

» Click the **Send revocation code** button to create an E-mail containing all required information.

If no mail client is installed, you can also make a screenshot and send it to the ISD (Email: license_request@isdgroup.de; Fax:0049 - 231 9793 288). In either case please also provide the name of the computer on which the revocation is to be performed, as this will facilitate the assigning of the revocation code.

Step 2 – Request License for New Computer

At the same time you can request a new local license.

The sending of the new license file can only take place after the revocation code of the old hardware has been received and verified by the ISD; the revoked license will therefore remain valid and utilisable for 4 days after revocation.

7 HiCAD at a Glance

HiCAD is a universal CAD system with true 2-D/3-D associativity, innovative functions, comprehensive industry solutions and an integrated PDM component. Up-to-date working techniques and numerous automatisms help you abridge routine tasks. Simulation and analysis tools enable you to detect and prevent possible collisions within your product models at early design stages.

» Performance characteristics:

- Microsoft Windows standard and GUI based on the Windows “Ribbons” technology
- Combined working in 2-D and 3-D
- Assembly-oriented design engineering providing top performance even for very large assemblies
- Transparency and clearness thanks to convenient search functions, filters and multiple selection options
- Extensive symbol and standard part catalogues
- Simulation and analysis tools
- Standardisation and automation
- Direct modelling and parametric design
- Integrated product data management with HELiOS
- Data transfer from other systems (CATIA, ME10, STEP, DXF, DWG etc.)
- BOM-creation, PPS interface, transfer to NC programs
- Comprehensive industry solutions for Steel/Metal Engineering, Plant Engineering, Sheet Metal processing and Plant Engineering
- Individually extendable due to a modular structure

8 First Steps in HiCAD

8.1 Start HiCAD

You **start** HiCAD by:

- using the Windows task bar (Start) to choose the **Programs** folder and then clicking the HiCAD icon in the **ISD ...** menu, or
- by clicking the HiCAD icon on your desktop.

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).

During 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 is issued and HiCAD is closed.

8.2 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 programs,
- Programs for the 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 (64Bit)

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Windows NT\CurrentVersion\Windows (32Bit)

If this is the case, a message will be displayed, informing you that third party libraries integrated in your Registry may cause problems in HiCAD, and recommending to contact your administrator if you want to deactivate this mechanism.

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 suppress the message completely, set the Registry value Check for AppInit_DLLs in the Registry key

HKEY_CURRENT_USER\Software\ISD Software und Systeme\HiCAD2012\HiCAD 2012

to **0**.

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

8.3 Close HiCAD

To **close** HiCAD,

» click the **Close** icon or

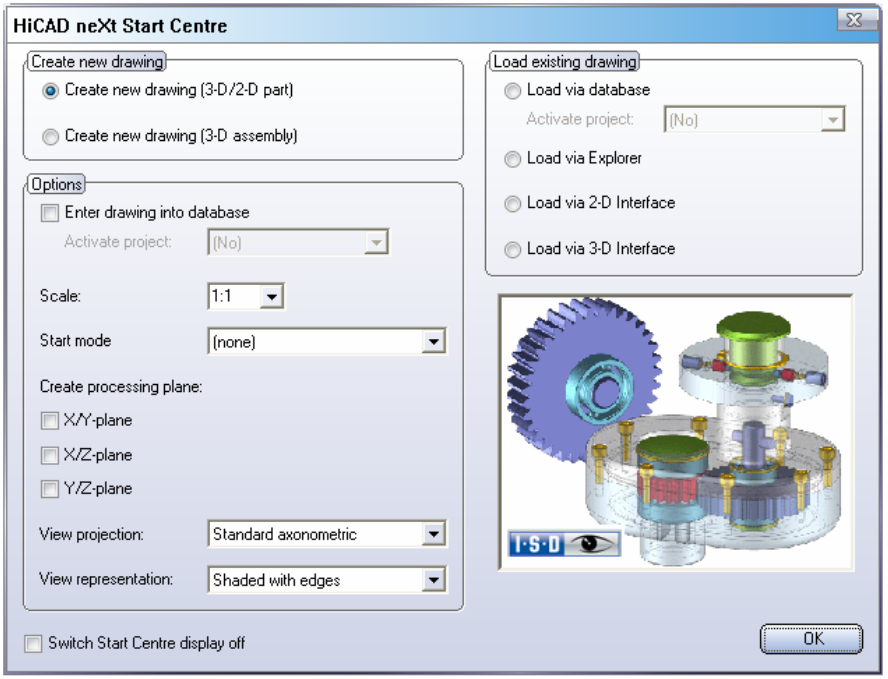
» click the ISD button and select **End**.

If any HiCAD drawings are still open at this point, you can to save them.

If you activate the **Clear temporary directory?** checkbox when closing HiCAD, all automatically created data backups will be deleted.

8.4 The Start Centre

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



Please note:

» Click on the graphic to obtain information about the version number.

» When you call the Start Centre again, the values that you set last will be displayed as default values.

» The settings you have selected for the **Create new drawing** start action will even be used in HiCAD if you call the **New drawing (without DB)** function.

8.4.1 Create New Drawing

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 (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 component 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.

8.4.2 Options

» **Enter drawing into database**
If you are working with HELiOS you can define here whether you want to 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.

8.4.3 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.

8.4.4 Switch Start Centre Display 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 the Activate Start Centre function. 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 the icon, the settings are ignored.

9 HELiOS at a Glance

On the way to the finished product, time expenditure, the cost situation and product quality can only be optimised if all departments of a company work together 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, distribution and management of the data that is required for the 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.

Thus, the know-how of the company will be used optimally, redundant work can be avoided and error sources will be eliminated.

HELiOS combines Product, Process and Peripherals Management to form a single system, thus making HELiOS the knowledge reservoir of your company.

HELiOS can be integrated in your overall CAD system or used as a stand-alone system, the so-called HELiOS Desktop.

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

10 First Steps in HELiOS

10.1 Program Call

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

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 ended HELiOS correctly during your last session, you will receive an error message from the Vault Server.

10.2 Registration

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.

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 (see below).

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.

10.3 Login

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

» Activate the **Login** function on the QuickAccess toolbar.

» Select a different user.

» If required, change the active project and confirm the new settings with **Login**.

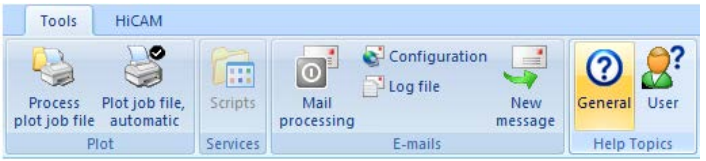
11 How to Use the Help

The Online Help provides you with information, descriptions and examples on all functions and techniques which are available in HiCAD – from 2-D and 3-D to the integrated PDM functionality, Sheet Metal Processing to Steel/Metal and Plant Engineering.

Please note that the scope of available functions may vary, depending on the configuration level of your HiCAD product. This means that some of the functions described in the Online Help may not be available.

As of Version 2012, the Help will be available both locally (status of the installation DVD) and on the Internet (regularly updated) at help.isdgroup.com. Both versions of the Help can be called from HiCAD via the Help Topics and Information item ("?" icon on the top right of window). You can select your preferred Online Help type via ? > Help Settings.

You call the HELiOS Help via Tools > Help Topics > General. Select your preferred Online Help type via Configuration > Options > Help.



In order 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.

Register for the ISD Wiki

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.

After the 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.

12 What's New in Version 2012?

The following section provides you with an overview of changes, new features and enhancements in HiCAD 2012.

12.1 Module-Comprehensive News

» New Look & Feel

- With optimised Ribbons and easily identifiable icons.

- The **Point options** menu has been redesigned. It has new icons that can be hidden, shown, enlarged ad downsized (SP1).

» Online Help
A regularly updated version of the Online Help is now available on the Internet at help.isdgroup.com. You can preset which type of the Help you want to use.

» Configure context menus
Use the icon on the bottom left of the menu to configure context menus according to your requirements.

» Open drawings in read-only mode
Drawings can now also be opened in read-only mode.

» Keyboard commands
You can now use the **F12** key to repeat the last action.

» Bills of Materials

- A special BOM configuration, HICAD_Blech_01.RMS, is now available for sheet metal processing.
- Steel Engineering BOMs can now also transfer avoirdupois weights to the Report Manager.

» Configuration management
HiCAD's central configuration management (ISDConfigEditor.exe) allows the definition of customer-specific configurations for a wide variety of use cases, such as dimensioning, annotations, workshop drawing generation or fitting of vertical ladders. Once adjusted to company-specific requirements, these configurations can directly be used in the end user's HiCAD applications without having to define any further settings.

» Workshop drawings / General drawing derivation
The Steel Engineering workshop drawing functionality has been enhanced and can now also be used for general drawing derivation. The function can now also be applied to general parts. The function can now be found, as well as the functions for Itemisation and Detailing, on the **Drawing** tab.

» Changed Default Settings in System Files
The default settings have been changed in several system files: ABWPAR.DAT, ALG3DPAR.DAT und STB_PARAMETER.DAT. (SP1)

» Thumbnails for KRA files
KRA files (3-D part files) can now be displayed as thumbnails, i.e. as shaded preview images, in the Windows Explorer, in the HiCAD Viewer, when inserting parts via the Explorer as well as in the preview images in HELiOS (SP1).

» Visualisation of User Interactions
For various functions the visualisation of user interactions has been optimised. This applies, for instance, to the rotation of 3-D parts and sketches, or to the moving of objects: Rotation axes and displacement vectors/directions are now visualised very clearly. (SP1)

» Unlocking of Locked HELiOS Documents / HiCAD Sessions
Use the Start tool bottom in the HiCAD sessions dialogue to unlock HELiOS documents and HiCAD sessions that have previously been locked (SP1)

» Design Checker
The Design Checker is a tool that enables you to increase the quality of your drawings and reduce costs and time through an early detection of errors in the design. You can auto-check your drawings for their compliance with specific construction guidelines. (SP1)
New options of the Design Checker allow you to check sheet metal parts for segmented bend zones, and check the mountability of the boltings for parts in your drawings or assemblies. (SP2)

» Cylindrical pin calculation
You use this function to check whether a cylindrical pin that was inserted for the connection of two parts has the required stability to withstand a specific force. The function calculates the shear force in the shear joint, and the required minimum diameter of the pin. (SP1)
You can now also select the material for cylindrical pin calculation. (SP2)

» Print all view areas/Print all drawings
Use this new function to print all or several model and sheet views of a drawing in one step. In addition, you can export the views as Postscript files and auto-convert them (with the help of an appropriate interpreter, e.g. Ghostscript) to PDF files or other formats, or combine them within one document. (SP1)
Use the **Print HiCAD drawing** function to to print several drawings (even without HELiOS) in one step, without having to open them beforehand. (SP2)

» AutoSave of data
The dialogue for the AutoSave mechanism Shortly before carrying out the AutoSave, HiCAD will display the **AutoSave** window. (SP2)

» HiCAD creator
In the basic module HiCAD creator the maximum number of possible 2-D points has been increased from 2,000 to 10,000. (SP2)

» Insert drawing frame
When inserting drawing frames, the specification of the fitting point on the drawing frame is no longer required. The fitting point is now always the bottom left corner of the drawing frame. (SP2)

» View scale in title block
Besides the sheet number and the main scale of the drawing, you can use the $VIEWSCALE key to enter the view scale in the title block of the drawing frame. (SP2)

12.2 2-D

» **Revision clouds**
Revision clouds can now be inserted as main parts or sub-parts. (SP2)

» **Delete functions**
The new **Delete list** function enables you to create a list of graphical elements by identifying them with the cursor. Identified elements will be marked permanently. Right-click to end element identification. An OK, YES/NO query will be displayed. Select YES to delete all elements. In contrast to the **Delete GE** function, UNDO restores all deleted elements at once.

» **Part creation**
In the redesigned GUI, the **2-D -> 3-D Level -> Body** function has been moved to **3-D Standard** > **New** > PullDown menu **Extruded solid**.

» **Scale text**
The new **Scale** functions enable you to scale texts through specification of a scaling factor. This can, for example, be useful when reading DWG files: If a DWG file with a 1:1 scale is read in, and the scale is subsequently changed to 1:20, the texts will not be scaled together with the drawing. The new functions enable you to adjust the text height.

» **Text Editor and Annotation Editor**

- The **Use attributes** from the product structure can now be displayed in annotations. For this to happen you need to enter the text %DBVA(ATTRIBUTENAME). (SP2)
- The HiCAD **Drawing attributes**, too, can now be used in annotation tags. For this to happen, enter the text %SA(ATTRIBUTENAME). (SP2)
- When copying texts from RTF files or the clipboard to HiCAD, bullet lists, numbered lists and indents will be taken over as well. Before you insert the text, HiCAD asks you whether tab stops and indents are to be represented as blank spaces. In the Annotation Editor, texts that have been separated by tab stops will be arranged in columns when they are taken over. It can therefore make sense to replace the tab stops by blank spaces. (SP1)
- CSV files can now be loaded into and saved in the **Text Editor** and the **Annotation Editor**. For RTF files (text and annotation), different formattings within one line are taken into account, except for superscripted and subscripted text.

- The column width for annotation tables can now be specified explicitly.
- You can now freely select the size of leader line symbols, e.g. the arrow. The arrow size will be saved together with the drawing, thus retaining the symbol geometry, irrespective of the workstation. You can also preset in the file POS3DPARNEU.DAT the angle and width of symbols (in addition to their length) as defaults.
- The key shortcut SHIFT+LMB now allows you to mark texts between the active field and the selected field in the Annotation Editor.

» HiCAD creator

The maximum number of possible 2-D elements has been increased from 2,000 to 10,000. (SP2)

12.3 3-D

» Views and representation

- The number of shortening directions for **shortened views** is now limited to three directions.
- The new algorithm for sectional and detail views provides the user with a significant performance increase, especially for complex drawings. This is particularly useful in the field of metal and facade engineering.
- Use the **Lock projection** function to fix views in such a way that they cannot be rotated out of the screen plane any more. You can find this function in the context menus for views.
- Auxiliary geometries contained in the sketch will be considered for the generation of sectional and detail views. This means that edges marked as auxiliary geometries will have no influence on the geometric representation of the sketch. (SP1)
- In central projection, curved geometries will now also be represented correctly in glass model views and Hidden Line views. (SP1)
- The **Shading mode** function is no longer available. (SP1)
- Centre lines, cross-hairs and Steel Engineering axes are always displayed as red dashed lines in **Hidden Line Dashed** representation. The overlap settings will be ignored, , as well as the corresponding pre-settings in the system file

ANSGEN.DAT. In contrast to this, the Hidden Line representation still respects the overlap settings for centre lines (SP2)

- Use the new **Copy 3-D view** function to create a copy of the active 3-D view . (SP2)

» **Presentation of 3-D models**

3-D models can now be exported as **3D-PDF files.** This interactive representation enables you to view and evaluate 3-D models from all sides and perspectives, even without HiCAD. The models can be moved, rotated, zoomed etc. In addition, the export formats **U3D** and **JT** are supported.

» **Sketches**

- The HCM functions for sketches and c-edges can now be found in the **HCM** function group of the **Sketch** tab.
- When **trimming lines to circles or arcs**, the selected section of the line will be shortened or lengthened to the intersection point with the circle/arc that is nearest to the identification point (for the circle/arc).
- In the **Delete sketch** menu you can find the **Delete double lines** function. This function enables you to delete lines or line segments that exactly coincide in a sketch. You can also use this function to delete overlaps (SP1).
- 3-D Sketches with HCM constraints are identified by the icon in the ICN. (SP1)

» **Create parts**

- The functions **2-D->3-D Level -> Body** and **2-D -> 3-D Conversion** can now be found in the **Extruded solids** menu.
- The functions **Mould part** and **Fill part** are no longer available.
- The Copy part is no longer available. Use the functions in the **Clone** function group instead.
- New parts can now already be identified as BOM-relevant parts during their insertion. In the corresponding dialogue windows, activate the **BOM-relevant** checkbox.
- There are various scaling options for the placing of **c-edge sweeps**: Evenly, Retain height and Retain cross-section.

» Process and model parts

- New copying functions are available in the **Move** and **Rotate** menus of the **Clone** function group. These enable the creation of multi-body structures by means of pattern clonings:
  - **Clone part, rotatory pattern**
    Clones the active part or part list in a rotatory pattern, i.e. by placing the clones about a rotation axis.
  - **Clone part, along c-edge**
    Places clones of the active part or part list along a c-edge.

    The transformation of the original along the c-edge can also be performed with direction specification. (SP1)
  - **Clone part, on grid**
    Clones parts or part lists on a grid, via linear displacement, rotation or along a c-edge, if desired also with vertical displacement.
- Use the **Deform** function to deform parts by bending them along a defined sketch. The sketch plane determines the neutral axis for the bending process. Possible are the following types of deformation: bending, twisting, tapering and stretching. Twisting, tapering and stretching are possible as of SP1.
- Use the **Wrap** function to create raisings, indentations and imprints on parts by wrapping of sketches onto part surfaces.
- The dialogue window of the **Part properties in sectional views and cut-outs** function has been redesigned.
- The **Model set** function is no longer available. Use the targeted showing and hiding of parts and part lists to process parts from large assembly drawings separately.
- The Tapered polyhedral fillet option is no longer available. Use the **Polyhedral fillet, variable** function instead.
- The separate functions for **Hyperedges** are no longer available. Functions involving the using of hyperedges, e.g. the sketch processing, c-edge sweep and polyhedral fillet functions, now have the hyperedge specification option in their dialogue windows.
- When you are using HELiOS, you can now also **exchange parts** via the document and part master.

- The default setting for automatic weight and surface area recalculation Update weight of parts (0:never; 1:when itemizing; 2:always) in the ALG3DPAR.DAT file has now be set to 1 (when itemizing). (SP1)
- The **Hide part list in active view** function is now also available in the context menu for 3-D parts when selecting parts /part lists in the drawing. (SP1)
- The **Trim to surface** and **Draught** function can now be found in the **Trim** pull-down menu of the **Process** function group on the **3-D Standard** tab. (SP1)
- If you select **3-D Standard > Tools > Surface > Surfaces, Further > Change colour**, Individual, a corresponding feature log entry, **Appearance**, will be created. For each surface of a part to which a particular colour has been assigned, a Facet with parameter sub-entry indicating the assigned colour will be created in the feature log. (SP1)
- The **Scale** function can now be found in the **Process** function group of the **3-D** Standard tab. This function now automatically creates a Feature log. The functions Scale Volume, Surface area and Weight are no longer available. (SP2)
- **Weight**
  If you use the **Part Attributes** function to assign a weight to a 3-D part by entering a particular value, you can activate the **Fixed** checkbox to lock this field and prevent an overwriting of the entered value by HiCAD. (SP2)

» Standard Parts and Standard Processings

- The context menu of weld seams now contains the new **Change font** that enables you to change the text parameters of a weld seam tag (font, colour, text height etc.) subsequently.
- For various thread runouts, e.g. according to DIN 76, the **Thread runout** dialogue window will be displayed after exiting the catalogue system.

  It contains the new checkboxes **Free point angle** and **Bore depth = Drill bit**. If the **Free bore depth** checkbox is activated, the additional checkbox **Bore depth = Drill bit** will be made available. If you activate this checkbox, the drill bit will be the end point of the thread runout. The drill bit value, too, can be entered explicitly if desired.

  The **Bore depth=Drill bit** checkbox option is also available for blind holes.
- Weld seams can be displayed in standard representation (mechanical engineering) or special, simplified representation (steel engineering).

- If you select a sheet main part to be welded on, the weld seams will be determined for all sub-parts, and superfluous (double) powder marking lines will be removed. If a sub-part is selected for a welding, only the sub-part will be welded on.
- When inserting threads (e.g. DIN 13) you can select between left hand and right hand threads.
- In the system file NORM.DAT you can now use the item *Prüfung der Sacklochtiefe (> 0 -> erforderliche Mindestmaterialdicke, <= 0 keine Prüfung) [Check blind hole depth (> 0 -> required minimum material thickness, <= 0 no check)]* to enter a parameter for the checking of blind hole depths, i.e. you can preset the required minimum material thickness.
- Standard processings now also include bores and subtractions in the shape of filleted rectangles.
- You can now also add fasteners from the Factory standards > User-defined fasteners catalogue, such as anchor screws or dowels, which enables you to use customized fastening elements for boltings.
- You can now invert the direction of a bolting subsequently.
- In the selection dialogues for Standard Parts and Materials you can now restrict the number of parts/materials offered for selection by setting appropriate filters. (SP2)
- When inserting Standard Parts, Standard Processings etc. via the Catalogue system, you can now use an extended search function. (SP2)
- The tables for the bolts according to DIN EN 14399 contain a column called SET for the **bolting set ID**. This column determines the BOM-relevance of nuts when bolting sets are inserted. (SP2)
- For this purpose, the dialogue for the insertion of boltings has been extended. (SP2)
- When inserting **weld seams** and **weld seam symbols** you can now also choose an empty entry from the listbox instead of a selection from dimension a to dimension z. (SP2)
- **Powder marking lines** can now also be created for other 3-D parts, and not just for Sheet Metal parts.(SP2)
- The catalogues for Fasteneres have been expanded, e.g. by nuts according to DIN6923, Cylindrical pins according to DIN EN ISO 2338, Screws and Bolts with coating, Oval head screws with TORX, ISO7045-X30 etc. (SP2)

» Texts and Annotations

- **Load text from file**
  Comma-separated CSV files can now be loaded with the Text Editor and the Annotation Editor, formattings will however not be taken over. In contrast, fonts can be taken over from formatted RTF files. Here, even various formattings within a line will be considered, except for subscripted and superscripted text.

  When loading formatted RTF files, indents, tab stops, bullet lists and numbered lists of the original text can be taken over for annotations. (SP1)

- **Paste text from clipboard**
  Indents, tab stops, bullet lists and numbered lists of original texts can also be copied and pasted from other Windows applications for annotations. (SP1)

- **Save text**
  Texts can be saved with the Text Editor and the Annotation Editor as comma-separated CSV files for a later re-use.

- You can now explicitly specify the column widths for **annotation tables**.

- You can now freely select the symbol sizes of **leader lines**, e.g. the size of the arrows. The arrow size will be saved with the drawing, thus retaining the symbol geometry independent of the workstation. In the file POS3DPARNEU.DAT you can now preset, besides the symbol length, the angle and width of symbols as default values.

- In the **Annotation Editor** you can now use the icon to mark all texts of an annotation. Use the SHIFT + LMB to mark the texts between the active field and the selected field.

- The Use attributes from the product structure as well as the HiCAD drawing attributes can now be used in 3-D annotation tags. (SP2)

» Dimensioning

- Arc dimensions can now also be created as chain, parallel and running dimensions.
- If a dimension tolerance is added, changed or deleted in a drawing containing a fits table, HiCAD will ask you immediately after the modification whether you want to update the table. When you subsequently save the drawing, the query will no longer appear.
- You can now separately specify the colours for texts, symbols and leader lines of surface symbols.
- Dimension line projections can now be separately switched on and off in the dimension parameters for linear, running, angular, arc and radius dimensions and for heights above datum.
- Dimension figures can now also be displayed with a white rectangular background on printouts of shaded views.
- New options for units of measurement are *in* (inch, am.) and " (inch, brit.). Selections made in *in* or " are always converted to ft and inches, and the dimension figure will be output in mixed format, e.g. 11' 3 1/4", or 11 ft 3 1/4 in.
- Decimal places of values in *in* (am) and " (brit.) can also be represented in the form of fractions. For this purpose, the changing options for parameters also include the new options Round value, Fixed denominator and Reduce fraction.

  Examples:

  - Original value 10,12, Highest denominator 8 -> 10 1/8
  - Original value 10,24, Highest denominator 8 -> 10 1/4
- The handling of dimension base points for non-updateable dimensions can be preset with the HiCAD configuration management (ISDConfigEditor.exe) namely via COMMON > DRAWINGS > ANNOTATION > DIMENSIONING.
- You can now define the desired behaviour of the dimension figure size and the dimension line position during zooming, by defining the parameters for parametric dimensions and HCM dimensions accordingly.
- The context menu for tabular annotations now contains the new Move annotation function. Annotations that have been moved with this function will be restored to their position relative to their fixed point when they are updated. (SP1)

- Dimension tolerances will now be sorted automatically in such a way that the greatest value will always be placed at the top (or at the front, respectively). This concerns the **Dimension Figure Editor** and the functions of the **Dimensional tolerances** menu. Dimensions in existing (old) drawing files remain unchanged. (SP1)
- If desired, parametric dimensions can also show the variables/formulas contained in the feature items. This is possible for parametric dimensions of solid primitives, extruded solids, revolved solids, standard bores, fillets and chamfers. Default setting is **Dimension figure+variable/formula**. (SP1)
- Use the **Dimension figure, Apply text** function to copy auxiliary dimension annotations to other dimensions - including all parameters (font, size, position etc.). (SP2)

» Performance

- Faster loading of large drawings thanks to various internal enhancements.
- The updating of referenced parts now takes place much faster.
- HiCAD offers the option of data reduction for a faster assembly creation.For the representation of referenced 3-D parts/assemblies, HiCAD will basically load and display a polygon model, thus reducing the memory consumption for large models and increasing the performance. (SP2)

» Referencing

- If you are using HELiOS you can specify in the DB configuration (**Configuration > Install > Database > HiCAD**) when the exchange of parts in drawings will be permitted.
- Referenced parts of the active drawing can be protected against accidental modifications with the **Lock against processing** function (right-click **referenced part > Referencing functions > Lock against processing**). (SP1)

» 3-D Grid

The edge parameters (Colour, Line type, Layer) of 3-D grid lines can now be selected freely. (SP2)

12.4 Steel Engineering

» Fit and process beams and profiles

- Multi-part beams and profiles can now also be derived from sketches.
- When placing beams and profiles along c-edges, the selected c-edge may only consist of straight lines and circular arcs.
- In contrast to other steel engineering beams, beams derived from sketches also allow point displacements (in a rectangle) crosswise to the beam axis.
- Grid steps can be exchanged against other steps in the HiCAD catalogues. To do this, select **Further functions > Exchange > Grating step**. (SP1)

» Connections and variants

- The former functions **Column connections acc. to DAST IS, one-sided** and **double-sided** have been replaced with the design variants **1302** and **1303**. These also allow a direct fitting of welded seams.
- The flexible front plate connection (1320) has been enhanced.
- A new design variant is available for double-sided front plate connections (1322).
- The former design variant for purlin joints with 2 plates and mitre cut acc. to DAST IH has been replaced with the design variant 1201, which also allow a direct fitting of weld seams.
- The strap connection (1310) has been enhanced, now also enabling a direct fitting of weld seams. The connection can also be used for double T- and double U-beams.

  Depending on the fitting situation, the beam to be connected will be notched automatically. The corresponding settings can be specified in the Notch tab. (SP1)
- New design variants for the **fitting of pipes** are now available. Weld seams for stiffeners (SP1) and connecting plates on the beam can also be fitted.
  If desired, weld seams can be generated on the pipes. (SP2)
- Connections can now directly be deleted via the **Delete connection** function on the Ribbon.
- The **Copy connection** function enables a multiple copying of a selected connection or design variant without having to identify the original variant several times.

- The variant **1 plate with mitre cut (201)** has been replaced with the variant **Purlin joint with mitre cut (1202)**. This variant also uses the new dialogue. (SP1)
  If desired, weld seams can be generated on the flange or the web. (SP2)
- The design variant **Base plate + Anchor plate (1101)** has been enhanced significantly. For example, it is now possible to define additional stiffeners in web and flange direction. The dialogue for this variant has been redesigned. (SP1)
- Also new is the design variant **Cross-bracing with turnbuckle/tensioning element** (1602). The design variant for the Cross-bracing (9501) has been renamed to **Cross-bracing (1501)**. (SP1)
- Connections can now be directly deleted via the **Delete connection** function on the Ribbon.
- The **Connect pipes** function is now available as a design variant in the **Civil Engineering functions** docking window. (SP2)

» Stairs and railings

- Stairs and railings are now called via the **Civil Engineering functions** docking window. A new stair type, **Concrete stairs** is now available.
- The boltings that are available for straight stairs are defined in the configuration file STAIRS SCREW JOINT.INI. In this file, configurations for bolts of the type DIN 7990 and a strength of 5.6 ,as well as bolts of the type DIN EN 14399-4 and a strength of 10.9 are pre-defined. (SP2)
- The boltings that are available for railings are defined in the file RAILING SCREW JOINT.INI. In this file, configurations for bolts of the type DIN 7990 and a strength of 5.6, with a flat washer, a wedge disc 5%, a wedge disc 8%, and a wedge disc 14%, as well as bolts of the type DIN EN 14399-4 and a strength of 10.9, with a flat washer, a wedge disc 5% and a wedge disc 8% are pre-defined. (SP2)

» Workshop drawing

- The functions for workshop drawings can now be found in the **Itemisation/Detailing** function group of the **Drawing** tab.
- For sheet metal parts, you can choose in the workshop drawing between a representation with and without hidden edges. Default setting is **without hidden edges**.
- In the settings for **view groups**, you can define the visualisation separately for standard views, sectional views and axonometric views.

- In the settings for **view groups**, you can determine that beams will be displayed in shortened representation in axonometric views.
- The loading of view groups created for workshop drawings has been speeded up.
- During view group creation for parts and assemblies, the respective type of use will be evaluated.
- If you use an external drawing as target, and load the drawing parameters from a predefined configuration, parts appearing exclusively as attached parts in the workshop drawing will not be included in the drawing BOM either. This means that the BOM-relevance for these parts has been deactivated in the workshop drawing. This behaviour can be changed via the configuration management.
- The function **Workshop drawing – Change settings, active view group** enables a subsequent definition of the views to be generated.
- When updating derived drawings you can deactivate the rearranging of views. This can be useful, for instance, if you want to retain your own view arrangement during updating.
- When adding view groups to sheets that already contain views from derived drawings, it is now possible to switch off the automatic rearranging of views. You specify this setting via the Configuration Editor. The default setting is 2, i.e. you will be asked whether you want the views to be rearranged. (SP1)
- In the configuration management (ISDconfigeditor.exe), the dimensioning rules (available via Common > Drawings > Generation > Usage_Dependent > COLUMN > WSD_DiMRULESET) have been changed as follows:
  - STWDIMRULE_7: Position 2 (previously 1)
  - STWDIMRULE_9: Position 2 (previously 1)
  - STWDIMRULE_45: Value for all views = 0
  - STWDIMRULE_46: Value for view 1 = 1, Value for view 2 = 2
  - STWDIMRULE_47: Value for all views = 0
  - STWDIMRULE_50: Value for view 1 = 2, Value for view 2 = 1
  - STWDIMRULE_61: Value for view 1 =2
- Dimensioning rule 10, direction "Perpendicular to beam axis" has been changed. When dimensioning attached parts, HiCAD now creates one individual dimension in the vicinity of the part.

- The dimensioning rules 8 and 10 apply dimensioning to plate sub-parts even if the plate surface runs parallel to the view and the part contains bores.
- The new weld seam annotations (as of HiCAD 2011) are now also used in workshop drawings.
- Lengths of mitre cuts are no longer dimensioned via the rules 21 or 23. If desired, you can now dimension mitre cuts with the rules 64 or 65.
- If you use the drawing parameters of a configuration, the part environment will not be displayed by default. To change this, use the Configuration Editor (ISDConfigEditor.exe) (SP1)
- You can specify either HiCAD or Windows paths for drawing frames via the Configuration Management. (SP1)
- You can now enter the value 6 for the Position parameter of the dimensioning rules for columns (vertical beams). For chain dimensions, the position of the drawing will then be selected in such a way that the chain dimension is located as closely as possible to the 2nd base point. This possibility exists for all chain dimensions, but not for individual dimensions such as length, height, width, diameter or angle. (SP1).
- For external PDM-managed drawings you can now specify in the configuration management whether missing sectional views are to be created in case of an updating of derived drawings. Default setting is 0 (do not rearrange). Furthermore, it is now possible to switch off the automatic rearranging of views in PDM-managed drawings. The default setting is 1 (rearrange). (SP1)
- When adding view groups to sheets that already contain views from derived drawings, it is now possible to switch off the automatic rearranging of views. You specify this setting via the Configuration Editor. The default setting is 2, i.e. you will be asked whether you want the views to be rearranged. (SP1)
- As for beams and profiles, the configuration management now also provides dimensioning rules for attached sheets and plates per side. One distinguishes between "Web, front" (BEFORE_WEB) and "Web, back" (BEHIND_WEB) as the side for the attachment. (SP2)
- You can now use the **AutoSync sectional views** option to specify how to proceed with sectional views that are still missing or have become superfluous. (SP2)
- The dialogue of the **Glass from sketch** function has changed. The dialogue enables you to load and save configurations for glass panes, taking also the type of coating into account. (SP2)

» Itemisation/Identical parts

- The type of bores (workshop, construction site etc.) can now also be considered for identical part search. In the parameter settings for itemisation, activate the **Production type for bores (workshop, site, ...)**. Checkbox. In this way you can, for example, specifically deactivate bores intended for installation for NC output.
- In the file STB_PARAMETER.DAT in the HiCAD SYS directory, the default setting for geometrically identical part search has been changed. The default setting for the entry **Bei der geometrischen Gleichteilerkennung alle Teile berücksichtigen [Consider all parts for geometrical identical part search] (0=no; 1=yes)** is now 1, i.e. all parts will be considered.(SP1)

» Other new features

- Steel Engineering BOMs can now also transfer avoirdupois weights to the Report Manager.
- Axis annotations are assigned to the grid main part 3-D GRID. This allows you to hide the grid part while retaining the grid annotations.
- During dimensioning of parts, the annotations will be placed in such a way that they do not overlap the processings. (SP2)

12.5 Metal Engineering

» **Grid plugin**
To provide a maximum of user-friendliness in the field of metal engineering and glazing construction the Metal Engineering planning grid plugin functionality has been further. Basic forms of complete facades containing beams, profiles and connections can now be created with only a few mouse clicks.

» **Foils and insulations in 3-D**
To enable a 3-D processing of foils, sealings and material insulations, the working technique for sectional views has been applied to these elements.

» **Alucobond-Profile series**
The Alucobond profile series has been included in the **Factory standards > Factory beams** catalogue. (SP1)

» **Cross-Section Properties**
Use the new **Attr. (Define cross-section properties)** function in the **Metal Engineering, 2-D function** group to assign part attributes to a cross-section. (SP1)

» **"Fixing bracket" design variant**
The Civil Engineering functions docking window now contains the new Fixing bracket Metal Engineering design variant. It is available in three different versions. These fixing brackets can be mounted onto intermediate ceilings, thus allowing a fastening of facade mullions to solid bodies. (SP2)

» The dialogue of the **Glass from sketch** function has changed. The dialogue enables you to load and save configurations for glass panes, taking also the type of coating into account (SP2)

12.6 Sheet Metal

» Base sheet

- New sheet from surface
  Use the **New sheet from surface** function to construct, via specification of a sheet thickness, new sheet metal parts from the surfaces of a 3-D body. (SP1)
- New sheet from solid
  - When converting an itemised solid to a base sheet, the item number and the BOM-relevance will be transferred. (SP2)
  - When creating a base sheet from a 3-D solid, you can now choose whether the sheet is to be generated with or without a bend zone. (SP1)
- Semi-finished products
  When creating base sheets you can now load **semi-finished materials** data from the CatEditor, i.e. the sheet thickness, bend radius, allowance method will be taken from the CATEditor.

» Attach flanges

- Attach flange entry in Feature log
  You can now change the fitting mode via the **Attach flange** Feature log entry. You can choose between the options **Attach**, **without shortening**, **With reference sheet shortening** and **With offset to reference sheet**. (SP1)
- Z-fold between 2 points
  The new function **Attach Z-fold between 2 points** function enables you to attach two contiguous sheets with relief groove creation.
- Attach sketch
  The **Attach sketch** function now also allows a mirroring of the sketch. The flange will be fitted in negative X-direction according to the sketch. Right-click to switch the sketch to positive X-direction before identifying the connecting edge.

» Design variant "Sheet corner"
The insertion of the Design Variant "Sheet corner" takes place via the "Civil Engineering functions" docking window. Double-click either the name or the preview image of the Design Variant. Then, identify the insertion edges. In the dialogue window you can then adjust the parameters of the sheet corner variant to the sheet metal part.

» Close Corner, Outer Edge Flush
Use the new **Close corner, Outer edge, flush** function to lengthen each sheet to the outer edge of the other sheet. This also applies to the bend zone. (SP1)

» Solid from sheet
When converting an itemised sheet to a solid, the item number and the BOM-relevance will be transferred. (SP2)

» Sheet Development

- To ensure an error-free processing, e.g. during laser cutting, the line elements must not be smaller than the laser beam. Before creating the development you can set a minimum line length. In this way it is ensured that, for example, the length of circular arcs will not fall below this minimum length during development. You specify the minimum value in the **CAM-relevant minimum length of development** entry in the **ABWPAR.DAT** file in the HiCAD sub-directoy SYS. (SP2)
- In sheet developments, threads are now created as sub-parts, as in 2-D. This representation consists of a three-quarter circle. This applies to the new development and updated old developments. The modified structure will be taken into account for DXF export. (SP1)

» Bend zone representation
In HICAD, bend zones can be displayed with or without segmentation. To display the segmentation, change the following entry in the SYS/ABWPAR.DAT file as shown below:**Cylindric representation of bend zones (yes/no=1/0)(without segmentation = 2) 1.** Restart HiCAD for the changes to take effect. New bend zones will then be displayed with segmentation.

» Mitre
If the angle on a flange becomes too sharp, a neat closing of the corner is no longer possible. In such cases you can use the new **Mitre, narrow side** function that creates a stepped 45 ° mitre.

» Processing direction
You can now identify the **Processing direction** and processing side by means of a direction arrow. This enables you to perform the development from the side that has been identified by the arrow, and automatically align it horizontally to the direction symbol. This is also an advantage in case of DXF exports.

» Powder marking lines

- In the **Powder marking lines** menu, the selection options for sheets to be projected have been extended, e.g. by the **With selection of attached parts** option.
- The Powder marking lines function can now also be applied generally, and not just to Sheet Metal parts. the function can be accessed via 3-D Standard > Standard processings > Bore > Powder marking lines. (SP2)

» Lettering

The **Lettering** function can not only be applied to sheet metal parts, but to all 3-D parts. It has therefore been moved to the **3-D Standard** tab. To access the function, select **3-D Standard** > **Standard Processings** > PullDown menu **Bore** > **Lettering**.

» Weld seams

If you use the 3-D function **Weld seam** (3-D Standard > Standard Parts) for a welding on of a sheet main part, the weld seams will be determined for all sub-parts, and superfluous (double) powder marking lines will be removed. If a sub-part is selected for a welding, only the sub-part will be welded on.

» Bills of Materials

For sheet metal processing the special BOM configuration HICAD_Blech_01.RMS is now available.

12.7 Interfaces

» General

- The performance for the loading and saving of drawings has been generally enhanced in HiCAD 2012.
- The functionality and the dialogues for import and export processes have been revised and optimised.
- The compatibility with new versions of foreign formats has been enhanced further. These include Catia (V4 and V5/R21), Inventor (2012), SolidWorks (2011), IGES, ACIS, DXF/DWG (14/ 2010), JTOpen, Parasolid (V22), Pro/E, Unigraphics and VDAFS. (SP1)

» New 3-D Export formats

- HiCAD 2012 supports the export formats 3D-PDF, JT and Universal.

» Autocad (DXF/ DWG)

- The saving of DXF and DWG files has been enhanced further:
  - The dialogue has been redesigned.
  - The performance has been increased, enabling a continued working in HiCAD during the saving process
  - You can now create individual DWG files without DXF format being required.
- Free edges and isolated points can be transferred, as well as continuous line hatchings (also cross-hatchings), whose transfer can also be suppressed if desired.
- Enhancements and optimisations have also been made to the sheet metal-relevant functional area the DXF interface.

» Step

- A new dialogue is available for the import and export of .stp files.
- The STEP data exchange has been technically revised. It is now also possible to process free c-edges (wireframes), and the reading of error-prone STEP files has been improved.

- The transfer STEP file layers to HiCAD has been optimised. Thanks to these improvements the intermediate step of an MTA export will no longer be required.
- During the export of Step files, the progress of the export is shown by a progress bar. (SP1)
- It is now also possible to read referenced STEP files, enabling a selection of individual STEP parts of a structure tree. (SP2)
- HiCAD Sheet Metal parts can be united during STEP export, which allows a more efficient processing in other systems. (SP2)

» DSTV

- The DTSV-NC interface now also allows the exclusion of bores from the export.
- Punch marks will now no longer be created on the outer edges of beams/profiles, but can be moved by a value. (SP2)
- The file name can be automatically generated from the document or part number of the HELiOS Database. (SP2)

» FEM

- The FEM interface is no longer available.

» CADENAS PartSolutions

- When transferring parts from Cadenas PartSolutions to HiCAD, the Cadenas attributes "Part No". and the designation will now be transferred to the HiCAD part structure by default. (SP1)
- Furthermore, PartSolution parts can now also be inserted as sub-parts. (SP2)
- In the new HiCAD PARTcommunity download portal by CADENAS, 3D-CAD models in all common formats (including the HiCAD format) and from all fields of industry are now available. You can also directly access the portal via the import dialogue, if the file type is set correspondingly. (SP2)

12.8 HCM

» **Redesigned GUI and functionality**

- The HCM functions have been restructured. You can now find the
  - 3-D C-edge HCM on the **Sketch** tab,
  - 3-D Part HCM on the **3-D Standard** tab, and
  - 2-D Part HCM on the **2-D Part** tab.
- The functionality has been generally enhanced, e.g. concerning the display and identification of HCM constraints.
- HiCAD provides a further performance increase for several HCM-relevant functions. (SP1)

» **Additional point options**

- The **point options M** (mid point), **S2** (intersection point) and **QP** (quad point) can now be snapped during definition of HCM constraints.

» **Improved references to projections of external geometries**

- Older versions provided rather limited possibilities for the placing of HCM constraints onto edges (via projection of the edge onto the sketch plane) outside the active sketch. This shortcoming has been resolved in the new version that interprets projected geometries as fully-fledged elements having the same properties as the sketch geometry. Thanks to this enhancement, it is now also possible to define coincidences with ellipses of external drawings, or coincidences and tangential constraints with circles of external drawings.

» **References to intersecting geometries**

- When setting constraints, you can now also refer to the intersection of the sketch plane with a facet or an edge. This opens up completely new possibilities for parameterisation. If, for instance, you select a facet, you will refer to its intersection with the sketch plane. If you select an edge, you refer to its projection onto the sketch plane. This enables you, for example, to place a sketch edge vertically on a surface.

» Direct dragging

- It is now possible to drag a sketch by dragging one of its edges (in the element selection mode).

» Zoom-independent HCM dimensions and parametric dimensions

- You can use the parameters for HCM dimensions and parametric dimensions to determine whether dimension figure sizes and dimension line positions should be zoom-independent.

» HCM-identification of sketches in the ICN

- 3-D Sketches with HCM constraints are identified by the icon in the ICN. (SP1)

12.9 Catalogue Editor

» For customer-specific attributes, the columns **CUSTOM1 - CUSTOM5** are now available.

» The **Settings** function has been removed from the **HELiOS** menu. To access this function, select **Settings > HELiOS Settings**.

» The menu bar of the Catalogue Editor now features the new **Settings** menu containing the functions **HELiOS Settings** and **Track changes in HiCAD - ON/OFF**.

» Normally HiCAD regularly checks whether the catalogues are available in their most current version. This check can be activated by selecting **Settings** > **Track changes in HiCAD – ON**. If this checking option has been deactivated, the catalogue data will be loaded into HiCAD only once, and it will no longer be checked whether more current data are available. The current status (ON/OFF) will be entered into the Windows Registry.

» As a simultaneous **updating of the catalogue** from different clients can destroy the catalogue, only one update can be made at a time. If the user starts another update during the process, a corresponding message will be issued and the catalogue will remain unchanged.

- HiCAD now offers the new beam and profile series VHP by Voestalpine. These are available in the FACTORY STANDARDS catalogue.
- Use the new **Assign to system colours** option to transfer standard parts to the Colours system table and assign to particular colour to them.
- The new Duromere catalogue is now available under **Materials > Plastics**. Also new is the Elastomere catalogue. (SP1)
- The new profile series Alucobond profile series has been added to the **Factory standards > Factory beams** catalogue. (SP1)
- The Material Manager (materialmanager.exe) that enables you to transfer the materials in the Catalogue Editor to HELiOS, now also allows a transfer of user-defined materials in the Factory standards catalogue. (SP1)
- You can now set filters to refine your searches. (SP2)
- Use the **AutoCopy data records** function to copy complete blocks of data records from one or several catalogue tables in one step, and assign particular (new) expressions to these records. (SP2)
- Use the **Remove table from catalogue** function to delete tables from catalogues. The corresponding .IPT files will be retained. (SP2)
- In the GLASS TYPES table of the catalogue MATERIALS > GLASS. Here you can assign a coating type to a glass type. (SP2)

12.10 Feature Technology

» The redesign of HiCAD's GUI also includes enhancements and new functions in the field of Feature Technology. For instance, simplified parts are now appropriately marked in the feature log.

» The performance for feature recalculation has been increased by up to 30 %, even for very complex parts.

» Display of formulas and variables for parametric dimensions
You can now also display variables and formulas stored in the feature logs in parametric dimensions. This is possible for parametric dimensions of solid primitives, extruded parts, revolved parts, standard bores, fillets and chamfers. Default setting is **Dimension figure + Variable/Formula** (SP1)

» The **Scale** function can now be found in the **Process** function group of the **3-D** Standard tab. This function now automatically creates a Feature log. If you do not want this, use the functions of the **Scale** menu. (SP2)

12.11 Freeform Surfaces

» The **Remodel** option for transition pieces is no longer available.

12.12 Viewer

» Use the **Print detail** function to exclusively print selected details of a model.

» RPA files (P+ID projects) can now also be opened with the HiCAD Viewer. All relevant sheets will be displayed, and you can switch between the sheets. (SP1)

12.13 Report Manager

» For Report Manager outputs from HELiOS, line breaks with carriage return (CR) and line feeds (LF) in the data (multiline text attributes) will be replaced with spaces U+0020 (Unicode Character SPACE). (SP2)

» When generating Bills of Materials via the configuration files (*.RMS) supplied with HiCAD, a column with the name MODULE will be created. For this column a filter criterion depending on the template used is defined, ensuring that Assemblies (dummy parts with the ID 27) Welded assemblies (dummy parts with the ID 32) will not appear in the BOM. (SP2)

» For Plant Engineering and P+ID BOMs, new templates (VBS scripts) for the export to Excel are available: (SP2)

- P+ID BOM with symbol information
- P+ID BOM with HELiOS information
- Plant Engineering BOM for the entire drawing

12.14 Plant Engineering / Variant Editor

» New file format
HiCAD 2012 introduces a new file format for part variants as well as for Plant Engineering parts. For parts and variants, respectively, there is now only one file, namely an archive file comprising the files of all representation types in compressed form (.VAA for Variants, .PAA for Parts).

» Creating your own parts and variants

- Because of the new data format, the procedure for the creation of new parts and variants has changed.
- The specification of the COMPONENT_TYPE attribute is no longer required when creating user-defined parts. (SP1)

» Pipeline configuration
The dialogue for pipeline creation now offers the option to load and save pipeline

configurations. A pipeline configuration comprises the settings for the pipeline shown in the dialogue, i.e. colour, layer, pipe class and nominal width.

» Part data synchronisation
The new part data synchronisation function replaces the Variant AutoSync function that was available in previous versions. The new tool enables the transfer of the part data required for Plant Engineering to the HiCAD Catalogue.

» Settings

- Part selection
  If the option **Database** has been selected as part data source in the **Parts from** field of the Plant Engineering Settings dialogue, the industry key that is to be used for part searches in the database is displayed.

  The options for the specification of minimum and maximum pipe lengths for the automatic insertion of straight pipes can be found on the new Straight pipe tab.(SP1)

- Part insertion
  Switching of representation types do no longer require a switching of the part directory, as all representation types are now contained in one archive file.

- Straight pipe
  On this tab you can specify the minimum and maximum length for the insertion of straight pipes. (SP1).
  Parts of the type Straight pipe to which the connection type 10000 (welded) has been assigned, can optionally supply loose flanges when they are inserted. (SP2)

- Link to P+I
  Use the List button to determine which part types are to be considered for the checking of symbol links. (SP1)

» PAA Editor
This new tool enables you to create a PAA archive from the files for the various representations of a Plant Engineering part (non-parameterised, i.e. no variant), or to change the contents of a PAA archive.

» Pipeline isometry
Isometric drawings now use their own, isometry-specific links, by default and without release-relevance. These links are always created directly with the part master. The special link types are **Pipeline-Isometry** and **Pipeline-Layoutplan**. They are normally automatically entered into your database via an update tool.

» Symbol Editor
The Symbol Editor has been adjusted to the new part file formats (.VAA, .PAA). In HiCAD 2012 the Symbol Editor can only be operated after a conversion of the old data to the new formats. Due to these changes, the support of a Vault Server is now also possible.

» Check symbol link
Use the **Check symbol link** function to check which parts of the layout plan have been linked to a symbol in the P+ID. This function can be found in the **Load** pull-down menu in the **Link to P+ID function** group of the **Plant Engineering** tab. (SP1)

» New Plant Engineering parts
Various new PVC-U plastic parts of the company Georg Fischer, Pipe branches and Loose flanges. (SP2)

» Bent pipe
The special functions for the placing of bent pipes on guidelines are no longer available. Instead, a bent "straight" pipe is now placed onto a composite edge in the same way as a non-bent pipe. Furthermore, the condition that a bent pipe must always occupy its own composite edge does no longer exist. (SP2)

» Variant Editor
The Variant Editor (ANVAREDIT.EXE) has been enhanced and adjusted to the VAA file format. For VAD variants, a separate tool (VAD-Editor.EXE) is available that still offers the old functionality (before Version 1700).
You can now assign preview images to simple variants and structured variants subsequently. (SP2)

12.15 P+ID

» **Work directory:** Number of drawing thumbnail (SP2)
Formerly the P+ID always occupied the HiCAD thumbnail with the highest number (i.e. number 18). Now, the P+ID can be processed in any thumbnail.
As a result, the directory structure of the processed file changes as follows:
..\PID\WORK\Number of drawing thumbnail\Name

» **Dialogue texts**

- Redirect dialogue texts in comment dialogues (SP2)
  You can also use several placeholders in the form of ^Tn (n = Row number in database mask) in the Comment dialogue of a symbol data mask. You can place arbitrary texts before, between and after the placeholders. The text contained in the Comment dialogue can consist of a maximum of 255 characters after automatic replacement of the placeholder. The text replaced via a placeholder may also consist of a string for database attributes access.
- Take over database attribute as dialogue text (SP2)
  The taking over of a database attribute value as dialogue text is also possible for pipeline symbols.
  - If you have assigned a pipe class to a pipeline symbol, you can use %DBPCLAT(name1) to access the value of a pipe class attribute. name1 stands for the name of a pipe class attribute , e.g. PRESSURE.
  - If you have also assigned a "Straight pipe" part to the pipeline symbol, you can use %DBAT(name2) to access the value of a part attribute of the straight pipe. name2 stands for the name of a part attribute, e.g. D_AUSSEN (D_OUTER for "Outer diameter").

» **Edit several symbols** (SP2)
Use the new **Edit several symbols** function to change data mask contents for several symbols of a P+ID project at once. The data of the symbols will be collected in the Edit symbol dialogue window. The **<different>** entries in the **Dialogue text** window indicates that the values for this dialogue type are different for the selected symbols.

» Connection, (poly)line and Connection, diagonal
For both functions, a list of defined connection types will be displayed. Select the desired connection type with a double-click. Use the cross-hairs to specify the points. After creating a connection line, you can directly create another one with the same connection type without having to open the selection list once again. (SP1)

» Update representation of connections
Owing to the new possibility to define an arbitrary number of connection types, the functions for the updating of connections have been adjusted accordingly. (SP1)

» Measuring point with circle and Measuring point without circle
If you select the functions **Measuring point with circle** and **Measuring point without circle**, the list of defined connection types will be displayed as well, but only containing the signal connections. (SP1)

» Settings

- **Switch off tag for KKS pipeline symbol** (SP2)
  The pipeline tag which is normally used for pipeline symbols according to KKS can be switched off if desired. To do this, deactivate the **Pipeline tag** checkbox on the Symbol tab. If this option is deactivated, pipeline symbols and pipeline information will be graphically represented in the same way as with the identification according to DIN.To retain the desired pipeline annotation, you need to adjust the symbols _PIPE0 and _PIPE2 (in the symbol library ISDDINSYM1_...) beforehand.
- **Pre-define an arbitrary number of connection types** (SP1)
  Via the **P+ID Settings** on the **Connections** tab you can define an arbitrary number of connection types. Each connection will obtain a name. The name need however be unambiguous within the connection types (Pipe connection, Signal connection, Drive connection).

» Connections between different pipelines
In older versions, connections between different pipelines could only be created via a separation symbol. This restriction can now be eliminated if desired.

» Check part insertion
Use the new **Check part** insertion to check whether a corresponding part in the 3-D layout plan has been assigned to a P+ID symbol. (SP1)

» Check symbol identification for uniqueness
The symbol identification can automatically be checked immediately after entry or modification within the loaded P+ID project. This setting can be selected on the **Symbol** tab in the P+ID **Settings** dialogue.

» Ignore industry presetting during part search
This new option (on the **Symbol** tab in the P+ID **Settings** dialogue) affects the part search when assigning parts to symbols with the *Edit symbol* function.

» Edit pipeline
If the HELiOS Database is used for the management of the part data, an extended dialogue is now available for the editing of pipeline symbols.

» Part master attributes in the title block
As of HiCAD 2012, attribute contents of part masters linked to document masters of the P+ID can be displayed in the drawing frame.

12.16 HELiOS-HiCAD BIM-PLM Suite

» As of Version 2012, HiCAD's BIM-PLM functionality will be controlled via a separate license.

» The performance for part and document master data transfer has been increased significantly.

» The functions for workshop drawings and detail drawings have been replaced with the Drawing derivation function.

» For external PDM-managed drawings you can now specify whether missing sectional views are to be created in case of an updating of derived drawings. Default setting is 0 (do not rearrange). Furthermore, it is now possible to switch off the automatic rearranging of views. You specify this setting via the Configuration Editor. The default setting is 1 (rearrange). (SP1)

» The BIM Status of the current drawing is indicated in the ICN by appropriate icons (SP2)

» Via Configuration Management (ISDConfigEditor.exe in the HiCAD sub-directory EXE) you can determine under which circumstances the "Drawing is up to date" link should be set. This is done via the parameter CONDITION 'DRAWING IS UP-TO-DATE'. (SP2)

» When saving drawings, itemisation is no longer performed automatically. (SP2)

12.17 HELiOS PDM in HiCAD

» Redesigned GUI and functionality

- The redesign of HiCAD's GUI also includes smaller changes concerning display and menu structure of the **PDM** tab.
- The general performance of a number of PDM-relevant functions has been increased.

» Exchange 3-D part, via database
The function **Exchange 3-D part** , which was previously only available via the Explorer, now also enables an exchanging of parts via the database (i.e. via document master or part master).

» Unlocking of Locked HELiOS Documents / HiCAD Sessions
Use the Start tool bottom in the HiCAD sessions dialogue to unlock HELiOS documents and HiCAD sessions that have previously been locked (SP1)

12.18 HELiOS Desktop

» Redesigned GUI and enhanced functionality
Enhanced functionality for Drag & Drop behaviour (also for Folder and Project structures).

- The dragging of a document from the Windows Desktop into the HELiOS Desktop results in an import to the HELiOS Desktop, while the source file will be retained. (SP2)
- Optimised search functions and result lists.

- Optimised display and behaviour of list views and tree structures, also for project structures. (SP2)
- Documents can be loaded as read-only files (via context menu
- When re-importing files, you can now also check in files with changed extensions (e.g. files changed from .doc to .docx) (SP2)
- New Mark-Up /Redlining options (SP2)
  - It is generally possible to indicate in result lists whether a redlining document exists for a file.
  - If a mark-up document exists for a .SZA file that has been opened in the HELiOS Desktop, you will be asked if this document should be opened.

» Multiple classification
It is now possible to assign objects to several classes and Lists of Characteristics, which do not need to be in a hierarchical relation to each other.

» Text fields with line break
Text attributes can now contain more than 255 characters and consist of several lines. To be able to use this new feature, use the Mask Editor to assign the corresponding attributes (New: Unlimited text length, Line break possible) to the text fields.

» MS Office and CAD Interfaces
Helios 2012 offers plugins for the following versions of external CAD systems:

- Autocad 2011,
- Inventor 2011, und
- Solid Works 2011

(32 and 64Bit);

as well as a permanent interface to MS Office (including Outlook).

» The Plug-in for SolidWorks has been enhanced. Besides, it is now possible to insert Standard Parts in HiCAD via the part master of the HELiOS database. (SP2)

» Material Manager: Transfer of user-defined materials
The Material Manager (materialmanager.exe) that enables a taking over of materials

from the Catalogue Editor to HELiOS, now also allows a transfer of user-defined materials in the Factory standards catalogue to HELiOS. (SP1)

» Support of further formats in the Plot Manager
In the HELiOS Desktop, documents can be converted to other formats via output to the Plot Manager. Besides the DXF and DWG formats, an output as Iges, Step or 3D-PDF file is now also possible. (SP1)

» Terminal Server adjustment
To ensure a smooth operation of HELiOS in a Terminal Server environment, several adjustments and optimisations of the system have been carried out. (SP1)

» Internet Server
The HELiOS Internet Server provides the option to access, with the help of a web interface, an active HELiOS database, where you can then search for and call detail masks for documents, parts, folders and projects as a client. (SP1)

» Vault-Server for several suppliers
Thanks to an enhancement of the Vault Server architecture it is now possible to provide specific Vault Servers with particular contents via a central Vault Server. For more detailed information, please contact our Consulting staff. (SP2)

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