



HELiOS

UNLIMITED PLM PERFORMANCE DEVELOPED BY ISD

HELiOS - What's new?

Version 2020

News Overview

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THE WORLD OF CAD AND PDM SOLUTIONS

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Notes on HELiOS Updates

Major Release 2020 (V 2500)

Important Notes on Updates for Administrators

For updates to HELiOS 2020 (Version 2500 or higher) a central update of the supplied HELiOS database is required. Since conflict may occur during the update process in case of inconsistent data stocks, you should do the following:

- **Data backup before updating**

Make sure that a data backup was made before carrying out the update of your HELiOS database. For the backup, either use the HELiOS Database Creator (further information can be found in the Installation Notes) or your SQL Server Application. In case of any questions, or if you need any help with regard to your customized system architecture, contact the ISD Hotline.

- **Log file for update**

If any conflicts occur during the update, these will be recorded in the log file **HeliosDbUpdate.txt** (in the system path **%appdata%\ISD Software und Systeme\HeliosDbUpdate**). Have this file ready when contacting the ISD Hotline in case of an unsuccessful update, so that they can help you solve the problem and make a successful update.

- **New mask format**

Please read all notes with regard to the new mask format in HELiOS 2020!

- **MultiCAD interfaces**

If you are working with an Inventor or SOLIDWORKS interface and HELiOS, please note that before installing an update of an older version to HELiOS 2020 (Version 2500) or higher, some adjustments may have to be made before the update.


In this case, please contact the Consulting department of the ISD Group.


HELiOS Desktop

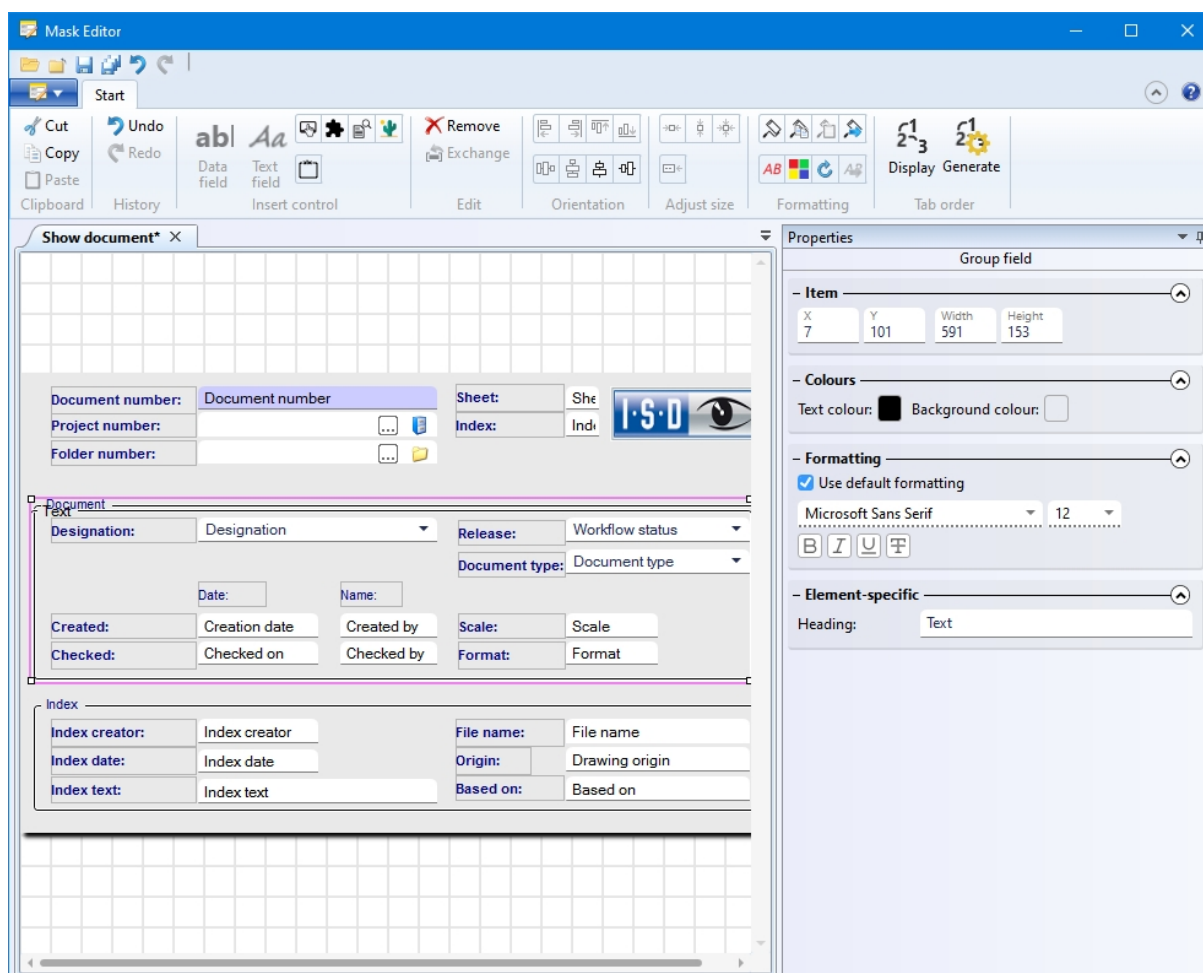
Service Pack 2 2020 (V 2502)

Enhanced Mask Editor

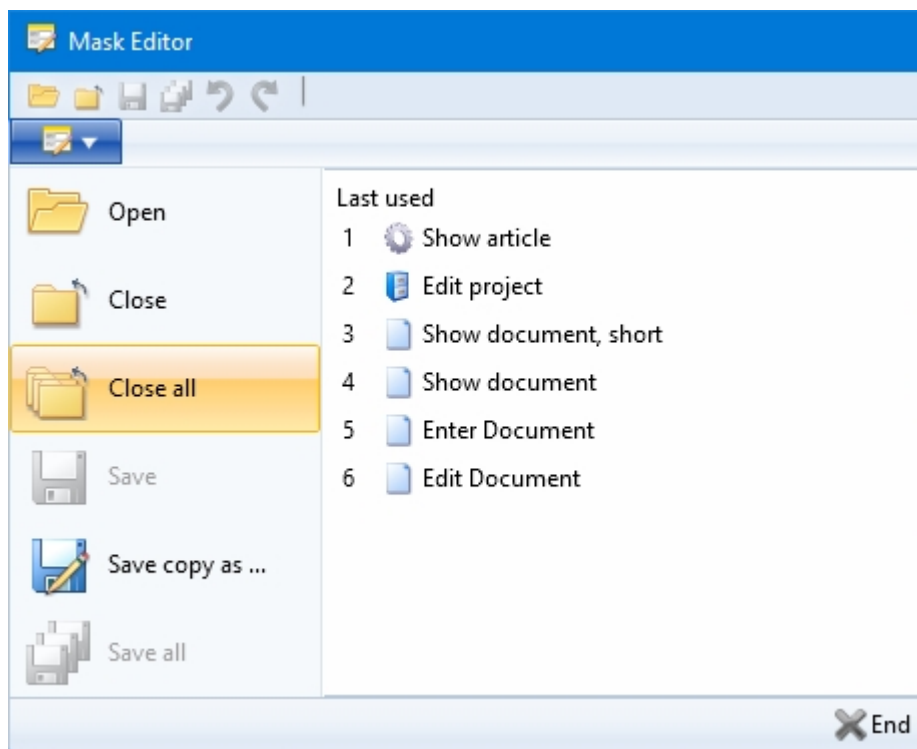
The new Mask Editor introduced with HELiOS 2020 has been further revised and enhanced with new features.

The  **Transfer formatting** function allows you to transfer the formatting of a specific element to a selection of other mask elements.

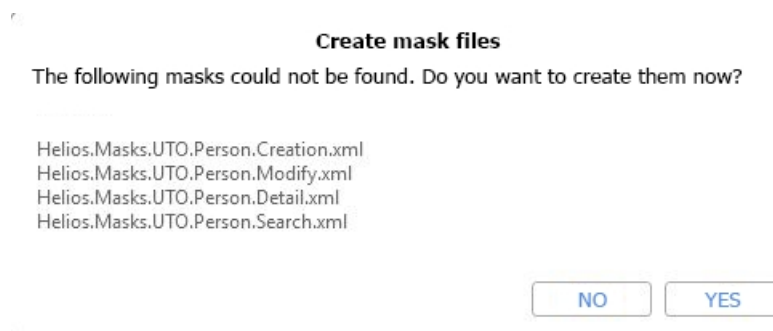
The also new  **Exchange** function can be used to change the attribute stored in a data field via a selection dialogue.



The range of functions for opening, closing and saving mask files has also been extended, including a display of last used files.



If new **user-defined object types** have been created in the **Attribute Editor**, you will be asked to create new mask files for them after calling or restarting the Mask Editor. Confirm the query with **YES** to execute the automatic process.



Intelligent "Delete" behaviour of objects

If HELiOS objects (Articles, Documents, Projects, Folders, ...) cannot be deleted - e.g. because the user does not have the right to delete them, or the corresponding edited objects are reserved for export, or are built into the product structure and/or model structure - then these objects are displayed in a corresponding result list after the deletion process, which shows the reason why the deletion process cannot be carried out for each object.

Delete result

The following objects could not be deleted:

Standard

Error	Article number	In	In	W	Designation	Part type	Werkstoff	Standard designati	Creation dat	Created by
Used in model structure	SN-028058				Fork-Crown	Individual part			21.08.2020	Designer1
Used in model structure	SN-028059				Head Tube	Individual part			21.08.2020	Designer1
Used in model structure	SN-028060				Fork-Brace	Individual part			21.08.2020	Designer1
Used in model structure	SN-028061				Dial-Elastomer	Assembly			21.08.2020	Designer1
Used in product structure	SN-028062				Dial-Cover	Individual part			21.08.2020	Designer1
Used in product structure	SN-028063				Elastomer	Individual part			21.08.2020	Designer1
Used in product structure	SN-028064				Dial-cap	Individual part			21.08.2020	Designer1
Used in product structure	SN-028065				Dial-Base	Individual part			21.08.2020	Designer1
Used in product structure	SN-028066				Dial	Individual part			21.08.2020	Designer1
Used in product structure	SN-028067				Spacer	Individual part			21.08.2020	Designer1
Used in model structure	SN-028068				Fork-Slider	Individual part			21.08.2020	Designer1
Used in model structure	SN-028069				Fork-Piston	Individual part			21.08.2020	Designer1
Used in model structure	SN-028070				UNI 5933 - M4 x 12	Individual part			21.08.2020	Designer1
Used in model structure	SN-028071				NF E 25-125 - M3 x 10	Individual part			21.08.2020	Designer1
Used in model structure	SN-028072				Fork-Tube	Individual part			21.08.2020	Designer1
Used in model structure	SN-028073				Fork-Damper	Individual part			21.08.2020	Designer1
Used in model structure	SN-028074				Fork-Slider_MIR	Individual part			21.08.2020	Designer1
Used in model structure	SN-028075				Fork-Piston_MIR	Individual part			21.08.2020	Designer1
Used in model structure	SN-028076				Fork-Tube_MIR	Individual part			21.08.2020	Designer1
Used in model structure	SN-028077				Fork-Damper_MIR	Individual part			21.08.2020	Designer1

Number of records: 20

Close

The deletion processes are executed in an optimal sequence, i.e. taking into account any existing references in the model or product structure.



Please note:

Under **Error**, only the first error that HELiOS encountered during the deletion process is displayed. That is, there may be other reasons why the object cannot be deleted immediately after the error has been corrected.

Furthermore, even if the Workspace is closed, you will be informed if objects to be deleted are currently in the Workspace.

Info

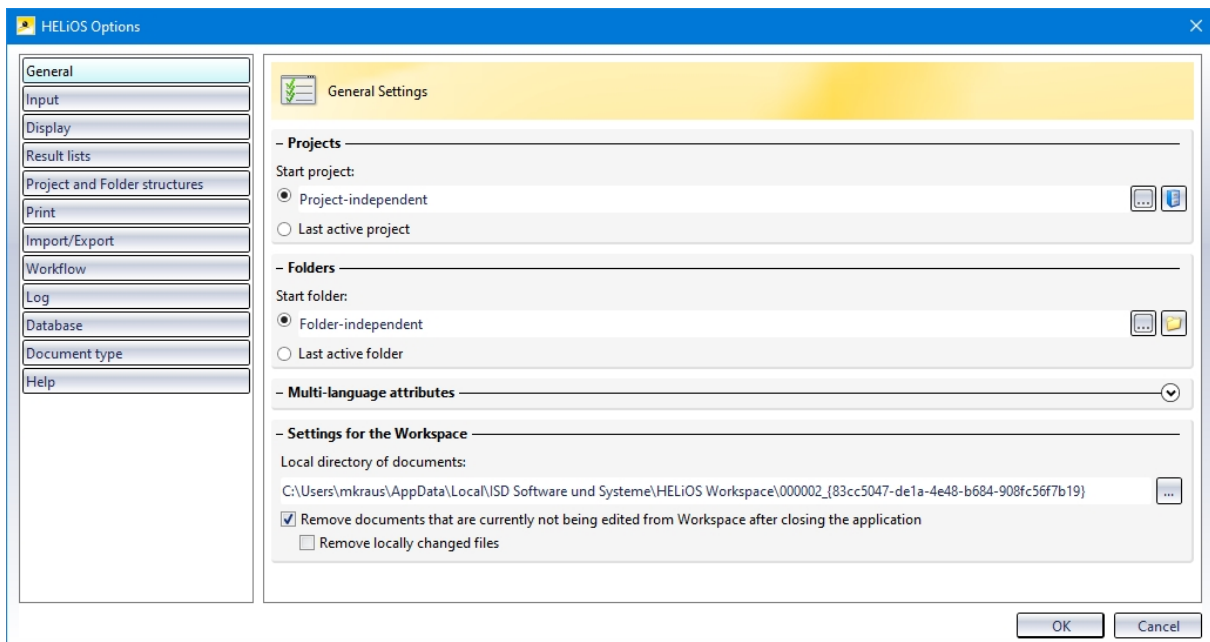
At least one document (DN-002938, DN-002940, DN-002941, DN-002942, DN-002943, DN-002944, DN-002945, DN-002946, DN-002947, DN-002948, DN-002949, DN-002955, DN-002950, DN-002956, DN-002951, DN-002952, DN-002953, DN-002957, DN-002954, DN-002958, DN-002939, DN-002937) is being used in a Workspace. Do you really want to delete these documents?

Settings for the Workspace

On the **General** tab of the **HELiOS Options** you can now find the new **Settings for the Workspace** area.

As with the known setting options in the area of MultiCAD interfaces you can also change the local session directory for the Workspace of the HELiOS Desktop, if desired.

You can also specify whether documents that are not currently being edited, or whether locally changed documents are to be removed from the work area when the program is closed.

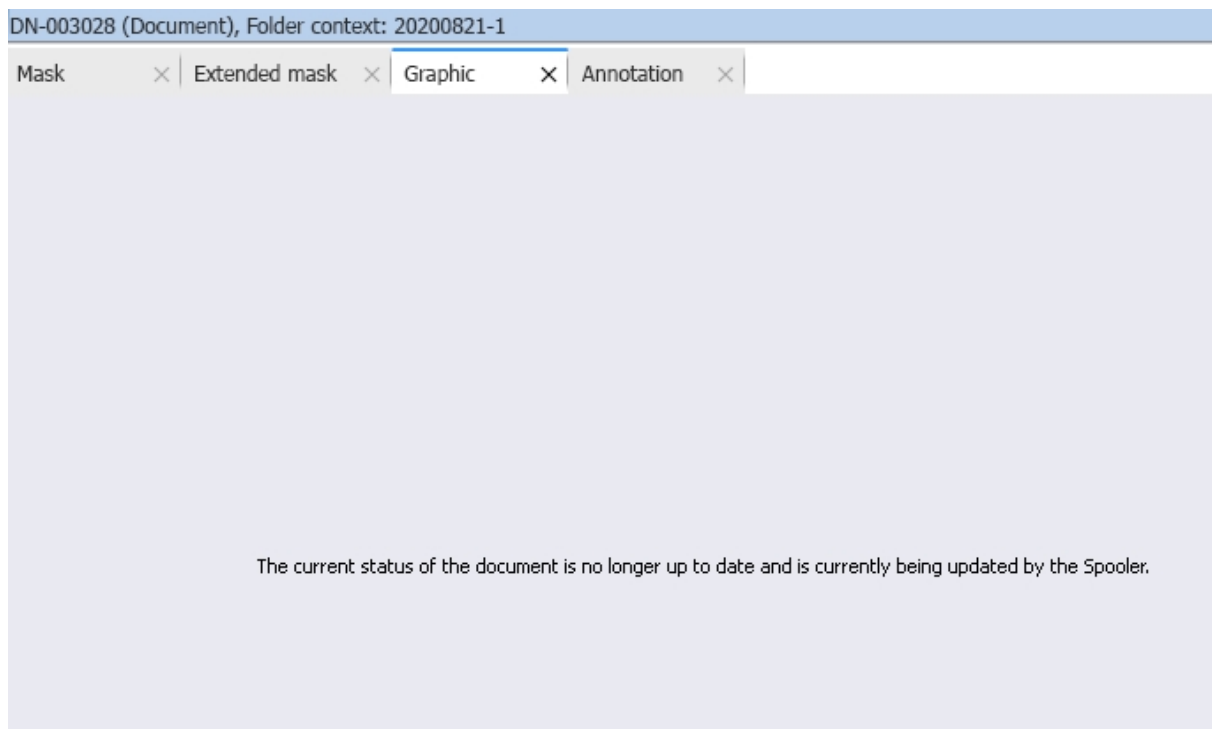


Marking "empty" archive documents when loading, viewing and exporting

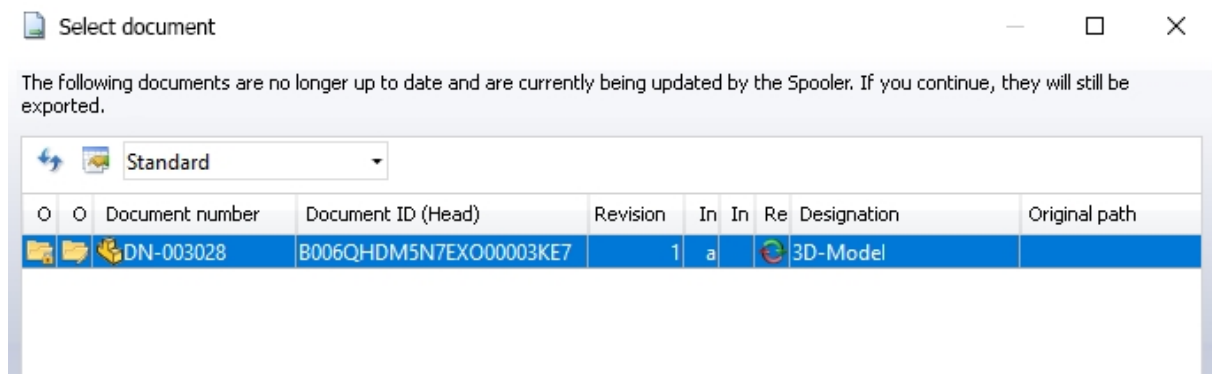
When sending print or conversion jobs via KST, which subsequently update an existing document master in HELiOS, the corresponding document in HELiOS can be marked as "obsolete".

A common example of this is the updating of neutral formats via the spooler. Another example is customer-specific adaptations that automatically generate archive documents upon release. Here it can happen that these archive documents are displayed as "empty" due to errors, outdated document statuses or a release or conversion by the HELiOS Spooler still running in the system.

Such documents are appropriately indicated when the HELiOS document master data function is called:



Also when exporting such documents, as well as when calling actions such as **Create notes document**, **Create mark-up** or **Open with (...)** you will receive a corresponding warning message:



After the document is updated by the Spooler, the corresponding identifier will be removed again.

Major Release 2020 (V 2500)

New mask format and central mask configuration



In HELiOS 2020, the previous mask format has been changed from .msk to .xml, in addition to the revision of the **Mask Editor**.

In addition, mask files are now managed outside the installation directory, resulting in some changes in the system architecture that administrators should urgently consider:

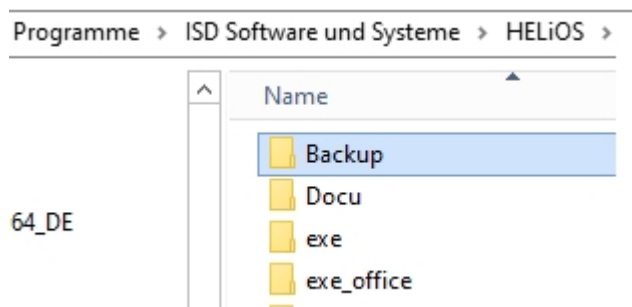
The masks of older versions that were previously stored in the \sys\ directory of the installation are automatically converted to the new XML format by an update installation of an older HELiOS version to HELiOS 2020 (V 2500) or higher and stored at **%Programdata%**.

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

Name	Date modified	Type
email	15.01.2020 03:09	XML Document
Helios.Masks.Article.Creation	15.01.2020 03:09	XML Document
Helios.Masks.Article.Detail	15.01.2020 03:09	XML Document
Helios.Masks.Article.Index	15.01.2020 03:09	XML Document
Helios.Masks.Article.Modify	15.01.2020 03:09	XML Document
Helios.Masks.Article.Search	15.01.2020 03:09	XML Document
Helios.Masks.ArticleClass	15.01.2020 03:09	XML Document
Helios.Masks.ArticleClass_anl	16.11.2019 03:09	XML Document
Helios.Masks.Document.Creation	15.01.2020 03:09	XML Document
Helios.Masks.Document.Detail	15.01.2020 03:09	XML Document
Helios.Masks.Document.DetailEx	15.01.2020 03:09	XML Document
Helios.Masks.Document.Index	15.01.2020 03:09	XML Document
Helios.Masks.Document.Modify	15.01.2020 03:09	XML Document
Helios.Masks.Document.Search	15.01.2020 03:09	XML Document
Helios.Masks.DocumentClass	15.01.2020 03:09	XML Document

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

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

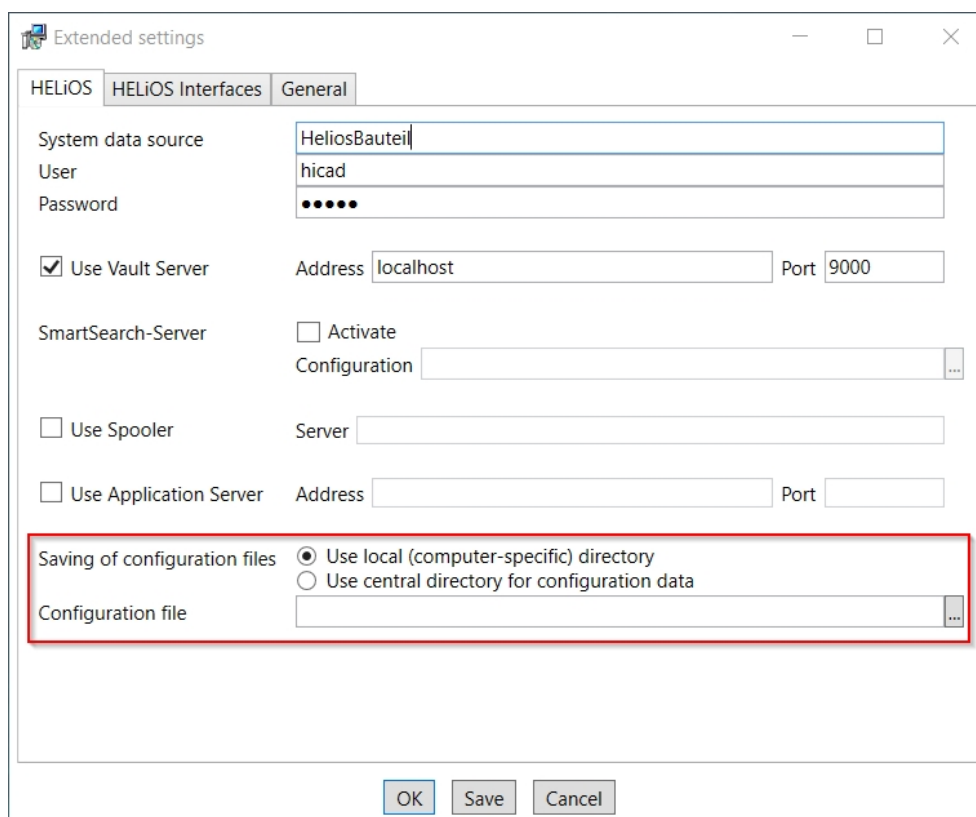


The new masks at **%Programdata%** should not be overwritten in any case, because these are the "delivery status", which may be updated by later update installations. If masks are edited and changed with the mask editor, they are stored at **%Appdata%** and are called up by HELIOS when working in corresponding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



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

The optional query for UI configuration during a new, update or change installation has also been extended to distinguish between a local and a central directory (across computers). This means that you can also store the interface configuration for several work centers in a central directory instead of having to "distribute" it to the individual local directories.



If you select the option **Use central directory for configuration data** in the new or update installation, you must select a **Directory**, e.g. network drive, via Windows Explorer instead of the local **Configuration file** in .zip format after clicking on the **...** symbol in the selection dialogue.

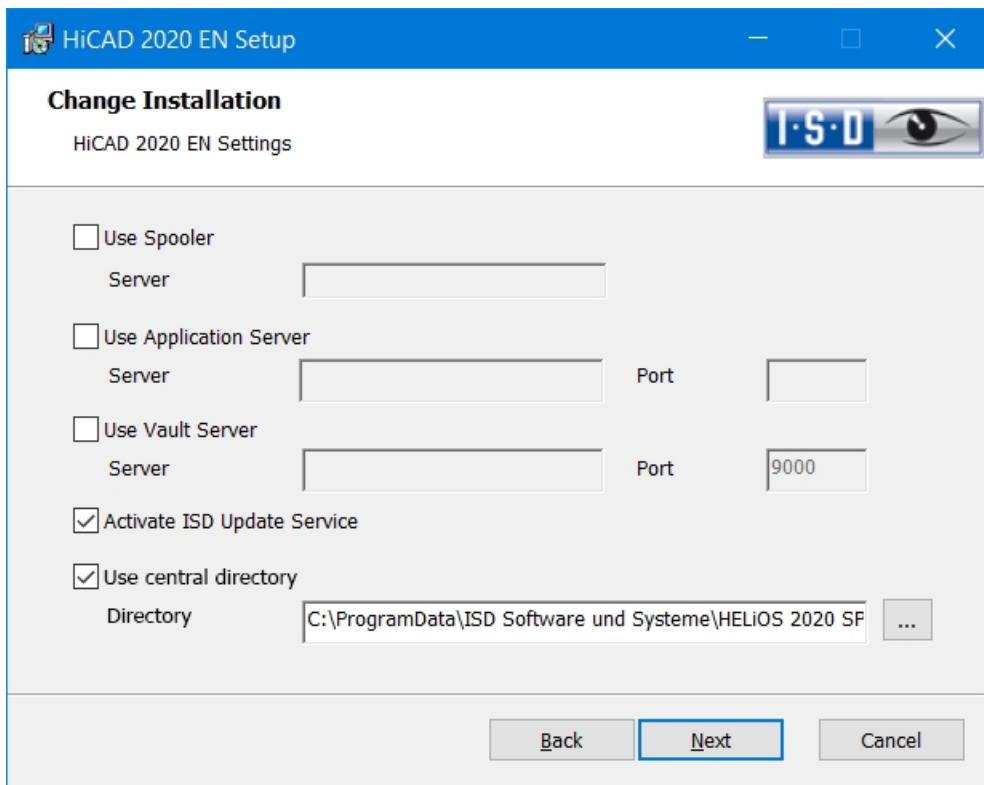
Saving of configuration files Use local (computer-specific) directory
 Use central directory for configuration data

Directory



Please also note the following:

- A **Change** installation of HELiOS or HiCAD with HELiOS offers the possibility to change to a central configuration directory later. However, the subsequent selection of a local configuration file is not provided at this point. If you want to change the local configuration afterwards, you should use the tool **HELiOSConfigImport.exe**.



- Settings files that are provided by the administrator in a central directory must be selectively copied to this directory. Due to the dependency on files, the directory structure provided by HELiOS must be observed. This must correspond to the structure under **%APPDATA%\ISD Software und Systeme\HELiOS 2020**. If you have any further questions, please contact the Consulting department of the ISD Group.
- If the set configuration directory is not accessible at runtime, HELiOS behaves as if the directory is empty. This means that the program starts without updating the UI configuration.
- When updating HELiOS for an older HiCAD version, the option to set the configuration directory is missing. This can only be adjusted via the registry. If you have any further questions, please contact the Consulting department of the ISD Group.

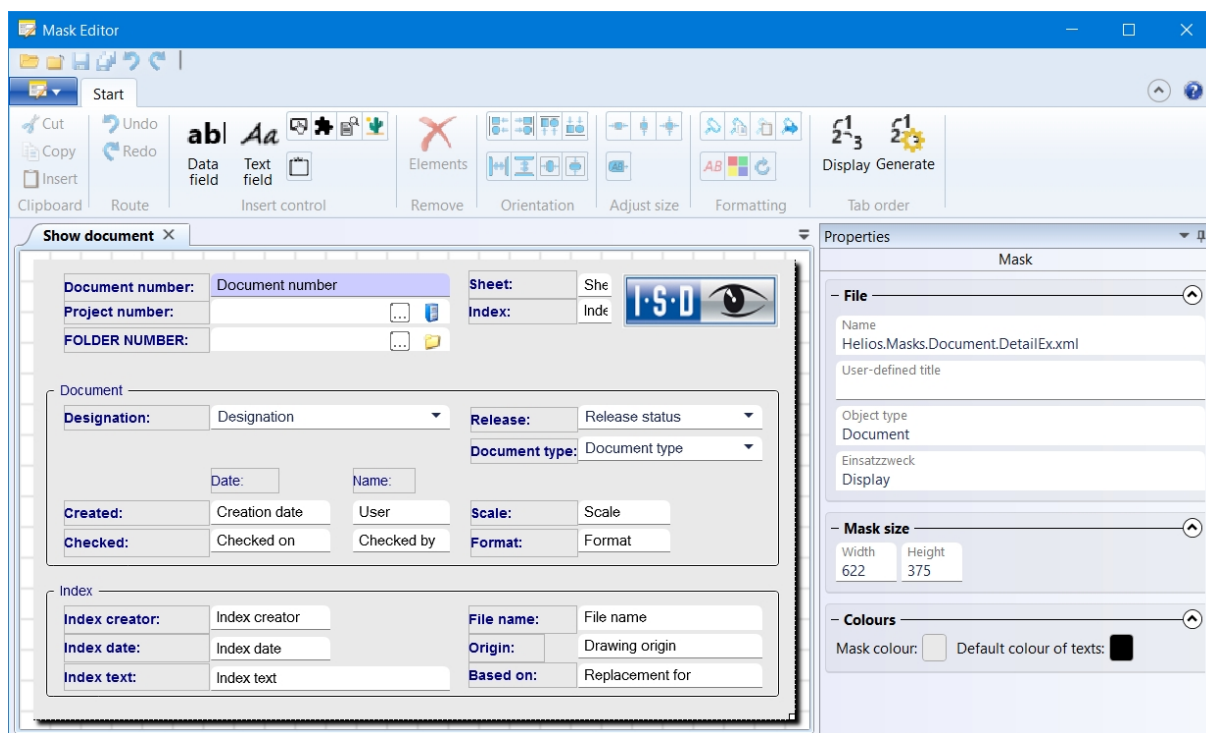
If problems occur during the conversion to the new mask format in the course of an update installation, the mask converter **MskToXmlUpdate** can be used.

New Mask Editor

With HELIOS 2020 (version 2500) you will find a new **Mask Editor** on the **Admin Tools** tab of the HELIOS Desktop, which has been adapted to the latest state of the art with a modern Look & Feel and thus offers some innovations and advantages compared to the previous version.

In addition to a modern Ribbon design, which also supports operation at high resolutions, this has laid the foundation for further expansion of the masks and the Editor in 2020.

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



Start search with F3

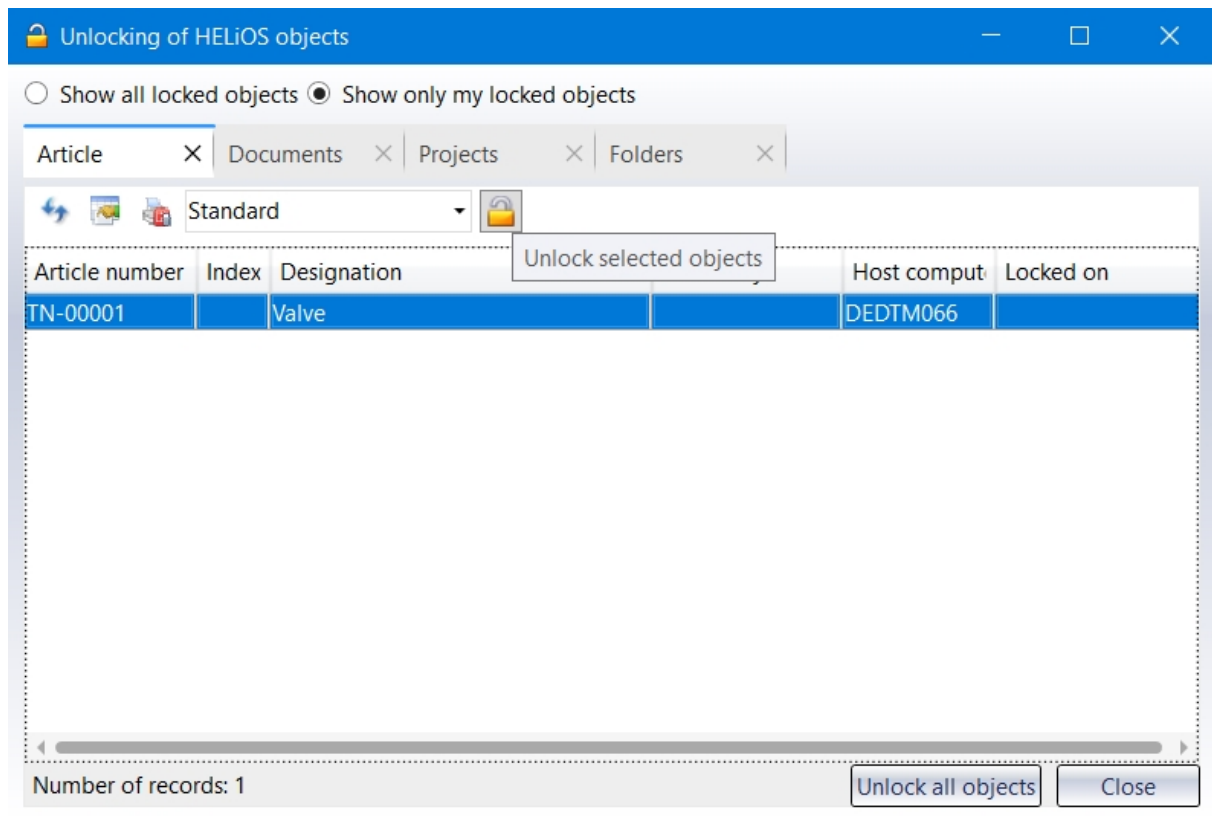
To avoid having to switch between keyboard (entering the search criteria) and mouse (initiating the search) when searching for a specific object in the HELIOS Database (Document, Article, Project, Folder, ...), you can also use the F3 key to perform the search.

You must therefore click on **Find** with the mouse in the corresponding, active search mask, but you can also execute the search using the keyboard with F3 for manually entered criteria.

ReleaseNext: Distinguishing between all objects and Admin objects

In the Admin tool **ReleaseNext** for unlocking HELiOS objects that are being edited by other instances, you can now distinguish between two options:

- **Show all locked objects:** In the corresponding object tab (Articles, Documents, Projects or Folders), all entries that were locked in HELiOS are listed (user-independent).
- **Show only my locked objects:** Only the objects that were locked by the logged on Administrator are listed.



HELiOS Spooler

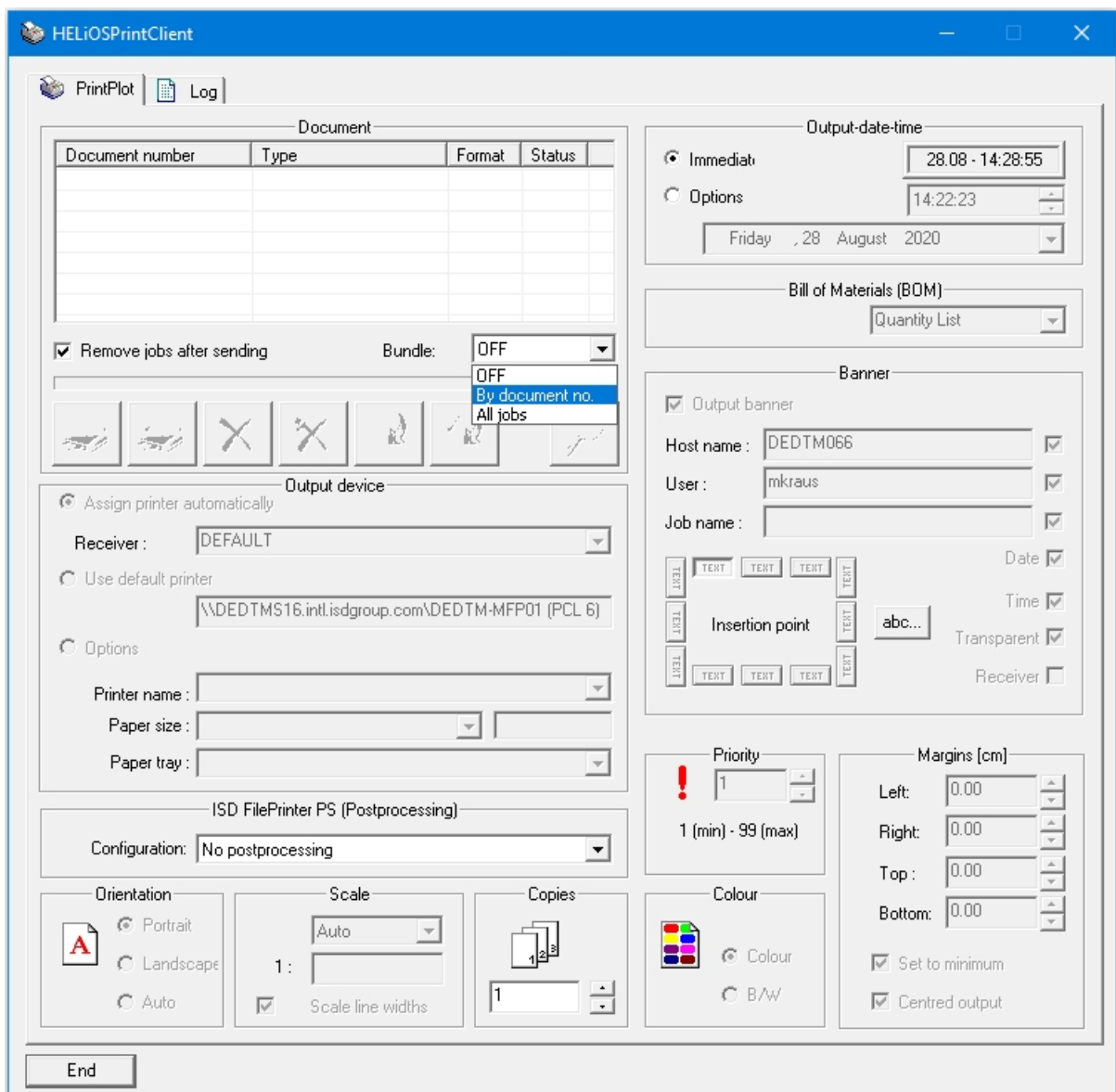
Service Pack 2 2020 (V 2502)

Print Client: Bundling of jobs by document number

The option to bundle jobs in the **PrintPlot** menu part of the **HELiOS Print Client** has been extended:

In addition to the default setting where print jobs are not processed in bundles (**Bundle: Off**), you can now choose between **Bundle: All jobs** and **Bundle: By document no.**

If the **Bundle: By document no.** option is active, documents (e.g. SZA files with several sheet areas each) can be converted into separate PDF documents, where a PDF document contains a separate sheet for each HELiOS sheet area.

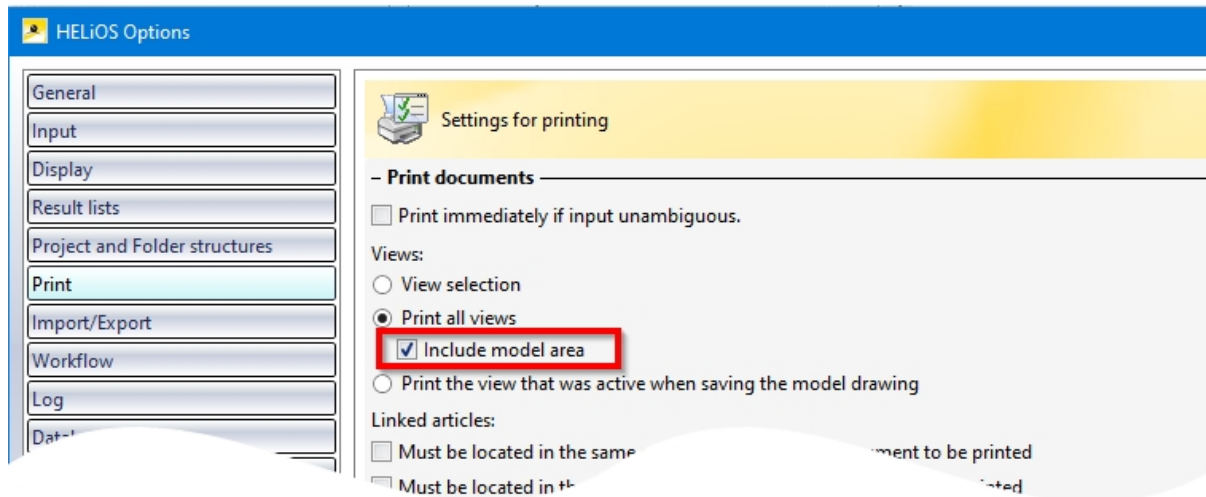


HELiOS Options: Include model area

In the **HELiOS Options** for printing documents you find the new sub-menu item **Include model area** under **Print all views**.

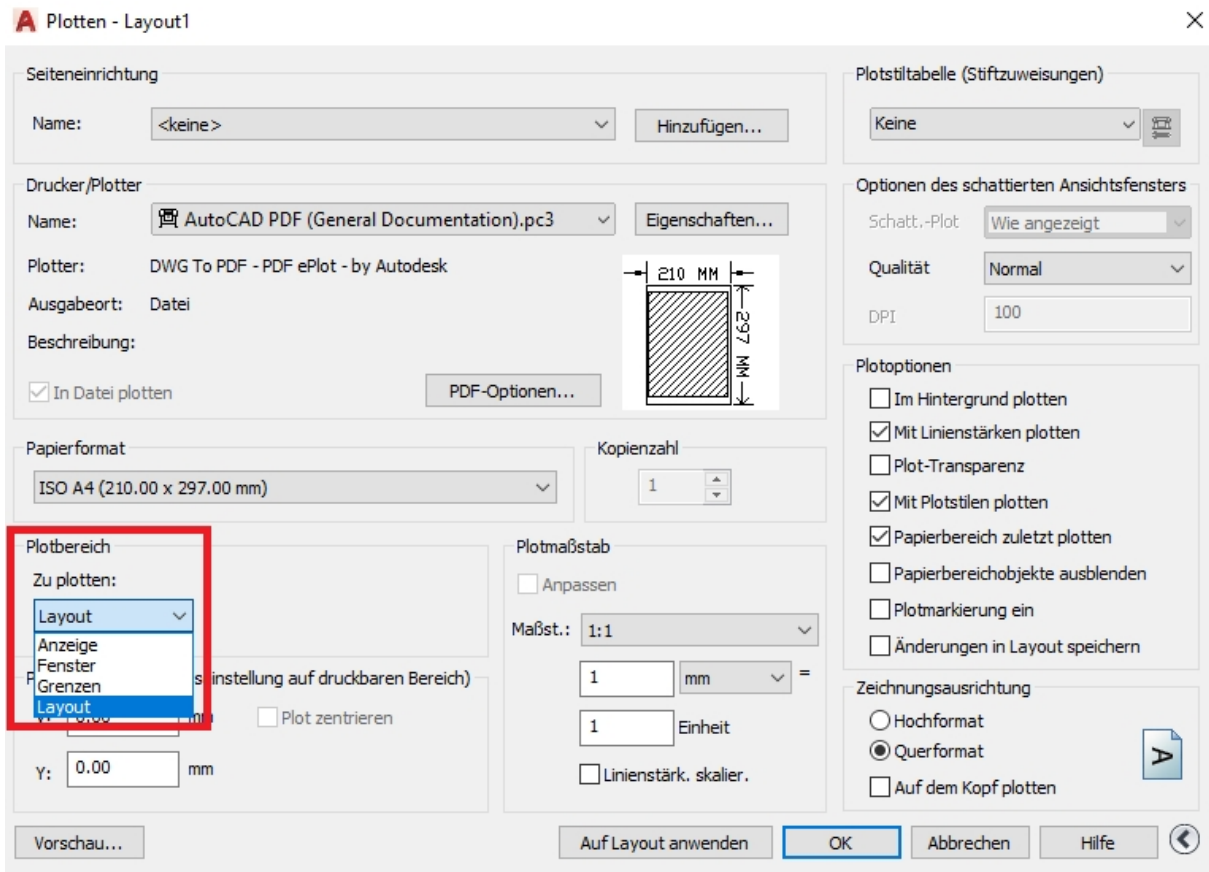
This option is relevant if you work with a CAD system (such as HiCAD or AutoCAD) that makes a distinction between model and drawing area.

If the option is not activated, all sheet areas of the drawing are transferred when the print jobs are transferred to the Report Manager. If this option is activated, the model area is also transferred.



AutoCAD plot area definition

When printing files from AutoCAD, the user can also select the **plot area**.



With Service Pack 2 (Version 2502) the configuration options of MultiCAD formats of the **HELiOS Spooler** have been extended in such a way that the AutoCAD plot area, which distinguishes between model and layout, can be taken into account accordingly when printing AutoCAD files.

Installation

When installing the HELiOS Spooler, please note that the database connection specification, which was optional in earlier versions or only required for certain interfaces, will be mandatory starting with HELiOS 2020 Service Pack 2 (Version 2502).

The screenshot shows the 'HELiOS Spooler Setup' dialog box with the 'Database connection' tab selected. The title bar includes the application icon and the text 'HELiOS Spooler Setup'. Below the title bar, the tab title 'Database connection' is displayed, followed by the subtitle 'Settings for connection with HELIOS DB'. A small 'I·S·D' logo with an eye icon is visible in the top right corner of the dialog area.

The main content area contains the following fields and options:

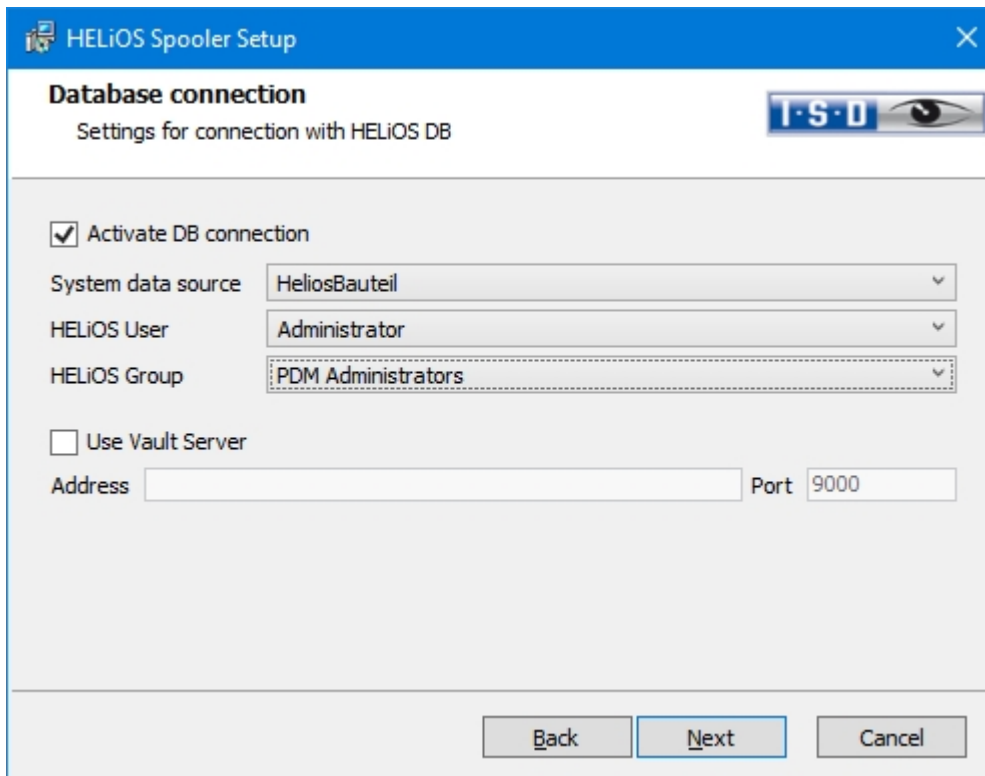
- System data source:** A dropdown menu with the value 'bauteil_bim_2501'.
- HELiOS User:** A dropdown menu with the value 'Administrator'.
- HELiOS Group:** A dropdown menu with the value 'PDM Administrators'.
- Use Vault Server:** A checked checkbox.
- Address:** A text input field containing 'ISDVault'.
- Port:** A text input field containing '9000'.

At the bottom of the dialog, there are three buttons: 'Back', 'Next', and 'Cancel'.

Service Pack 1 2020 (V 2501)

Extension of the installation

When working with MultiCAD interfaces please note the following extension to the installation: By setting up the database connection at this point, an even more stable operation of the HELIOS-MultiCAD coupling is guaranteed.



The screenshot shows the 'HELIOS Spooler Setup' dialog box with the 'Database connection' tab selected. The title bar includes the application icon, the text 'HELIOS Spooler Setup', and a close button. The main area is titled 'Database connection' with the subtitle 'Settings for connection with HELIOS DB'. A 'T.S.O.' logo with an eye icon is in the top right. The 'Activate DB connection' checkbox is checked. Below it are three dropdown menus: 'System data source' (HeliosBauteil), 'HELIOS User' (Administrator), and 'HELIOS Group' (PDM Administrators). The 'Use Vault Server' checkbox is unchecked. Below it are 'Address' and 'Port' (9000) input fields. At the bottom are 'Back', 'Next', and 'Cancel' buttons.

HELIOS Spooler Setup [Close]

Database connection
Settings for connection with HELIOS DB

Activate DB connection

System data source: HeliosBauteil

HELIOS User: Administrator

HELIOS Group: PDM Administrators

Use Vault Server

Address: [] Port: 9000

[Back] [Next] [Cancel]

Major Release 2020 (V 2500)

Notes on Update installations/ New postprocessing

The Spooler will be extended in such a way that the following information for bundled PDF export will be available for postprocessing:

- <MultiSheetCurIdx> (%HEL_MULTISHEETCURIDX%) - Current sheet index for multiple sheets within one job (if applicable, otherwise always 0).
- <MultiSheetEndIdx> (%HEL_MULTISHEETENDIDX%) - Last sheet index for multiple sheets within one job (if applicable, otherwise always 0).
- <MultiSheetOutputName> (%HEL_MULTISHEETOUTPUTNAME%) - Output file name without file extension; for multi-sheet printouts identical with <FileName>, but without attached sheet index.

In case of an update installation, you have to copy some system files to the right places, which will not be overwritten by it.

These are the files

- **ISD FilePrinter? PS.BatchPDF.bat** (executes the postprocessing)
- **ISD FilePrinter? PS.BatchPDF.PostProcess** (contains the calling of the postprocessing)

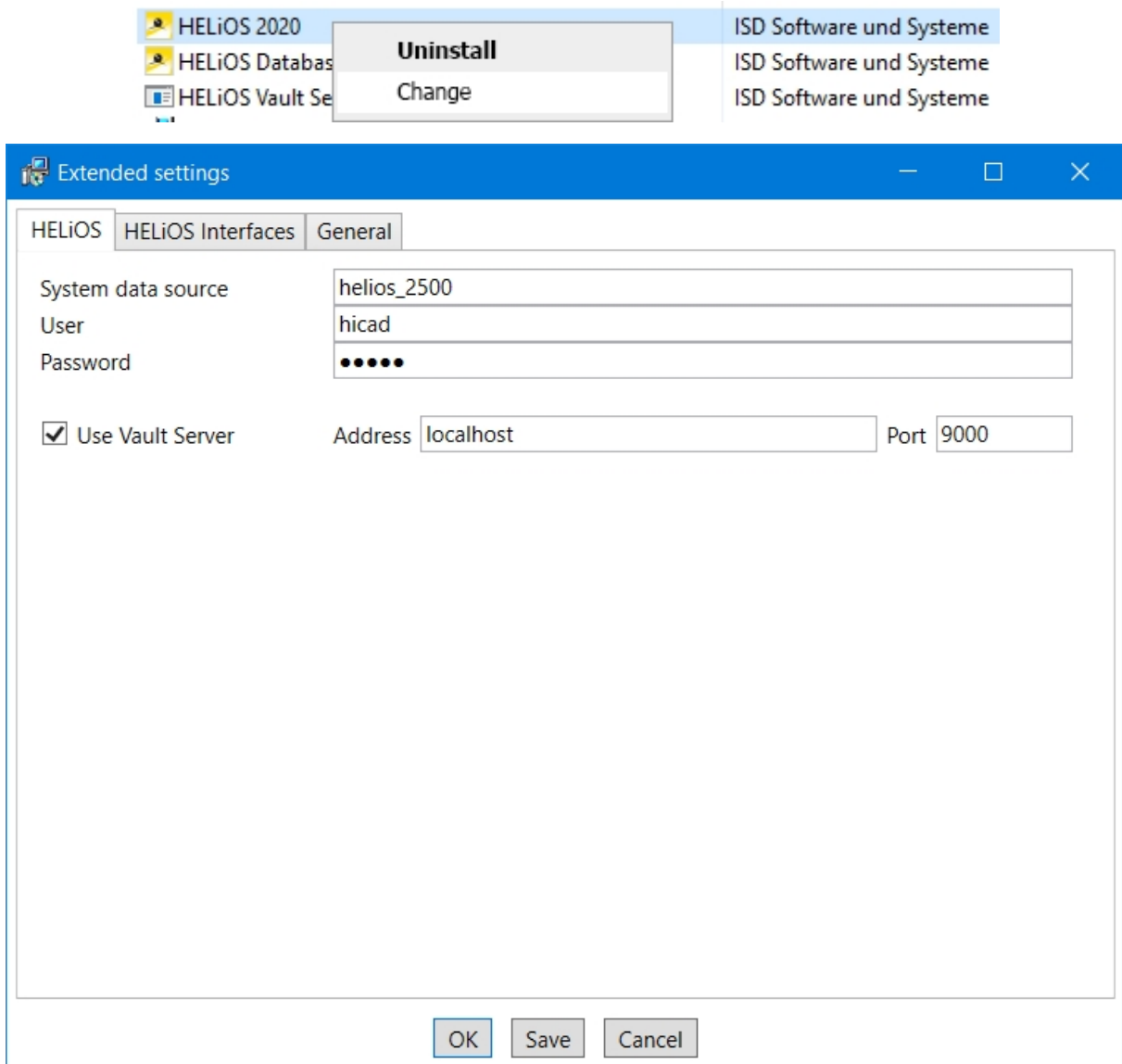
which you have to transfer from the installation directory of the Spooler (by default: C:\Program Files\ISD Software und Systeme\HELiOS Spooler\Defaults\FilePrintPostprocess\) to the target directory

C:\ProgramData\ISD Software und Systeme\HELiOS Spooler 2019 SP2\FilePrintPostprocess\.

A new installation of the HELiOS Spooler in Version 2500 (HELiOS 2002) is not affected by this.

"Change" option for MultiCAD settings

Not only can you configure the database and Vault Server connection for a CAD application (HiCAD, AutoCAD, Inventor, SOLIDWORKS) linked to HELIOS during a new or update installation of the HELIOS Spooler, but also via a **Change** installation.



HELiOS MS Office Interface

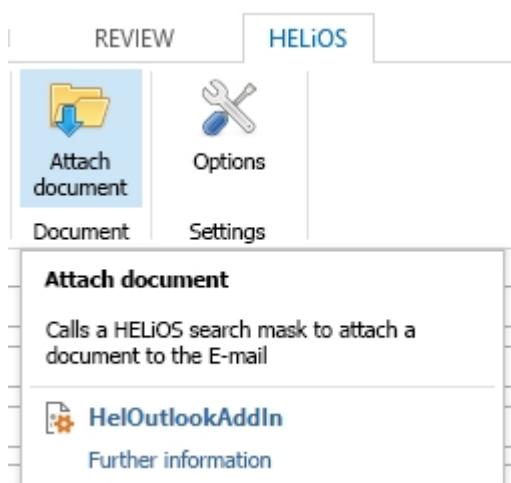
Service Pack 2 2020 (V 2502)

Add attachments to E-mails

When you write, forward or reply to an E-mail in Outlook, the **HELiOS** Ribbon of the E-mail window also provides the



Attach document function for attaching files via the **HELiOS** document search.



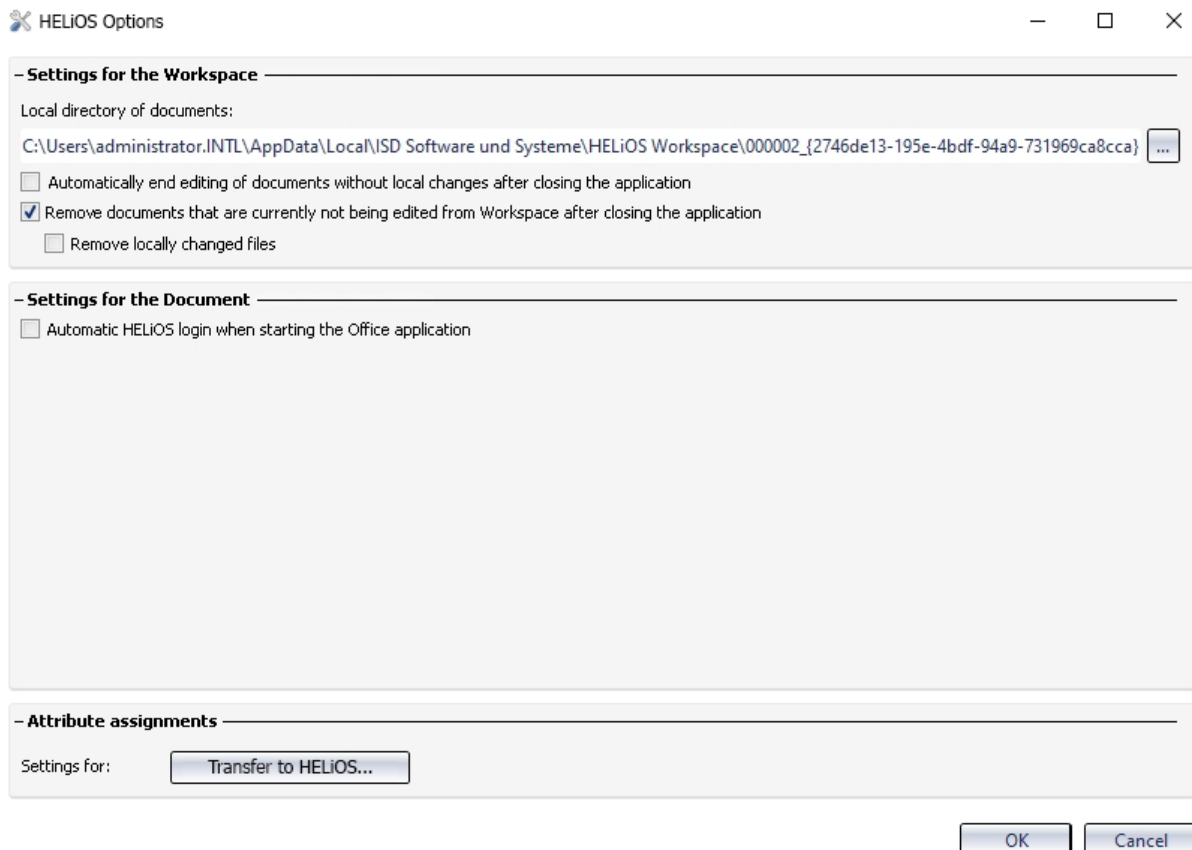
Please note:

If you are currently using Office 2010, the HELiOS interface will only work in separately opened E-mail windows, but not when the E-mail is docked in Outlook.

HELiOS options with automatic login

With the update to HELiOS 2020 Service Pack 2, an Options dialogue is available in the Office interface, as is already known from the HELiOS-MultiCAD interfaces.

In addition to settings for the Workspace and for the import of attribute mappings, you can activate the option **Automatic HELiOS login when starting the Office application** under **Settings for document** to prevent the HELiOS login dialogue from preceding each start of an Office application.



Service Pack 1 2020 (V 2501)

Transfer of forwarded E-mails as separate documents

When transferring forwarded E-mails to HELIOS, you can decide whether the forwarded E-mail should be transferred as a new HELIOS document (e.g. because the content has changed) or whether the original e-mail already stored in the HELIOS database is sufficient and the transfer of the forwarded E-mail is therefore not necessary.

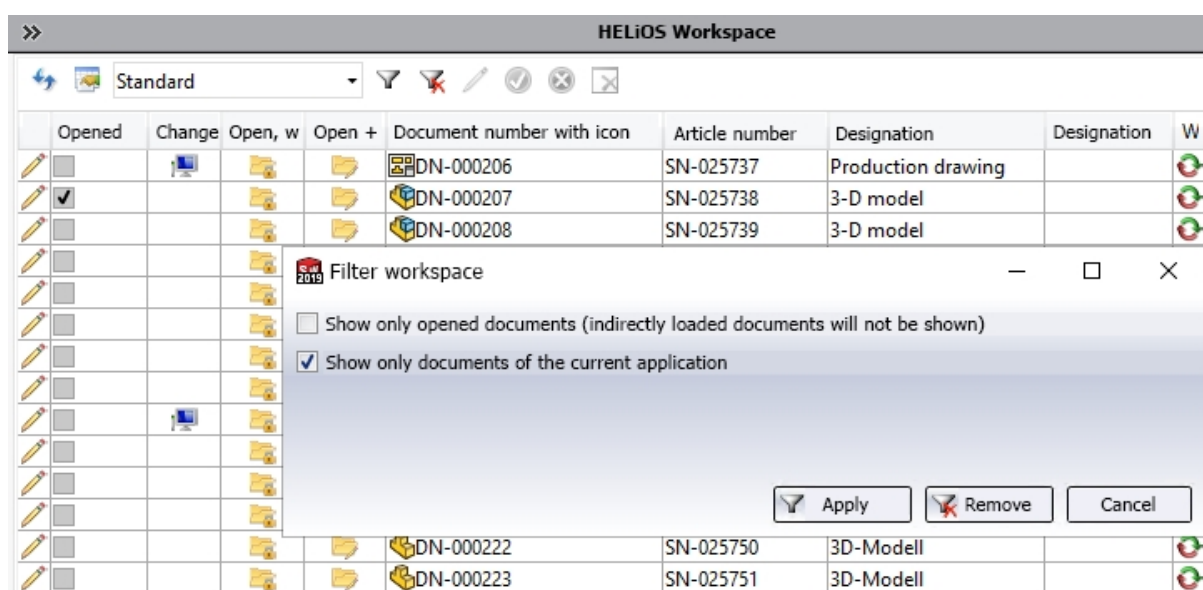
HELiOS CAD/CAE Integrations

Service Pack 2020 2 (V 2502)

Workspace

The behaviour of the **HELiOS Workspace**, which is available in HELiOS Desktop and coupled applications like Office, Autocad, Inventor, Navisworks und SOLIDWORKS, has been revised and extended.

The new **Show only documents of the current application** filter only allows you to switch between a view of all open HELiOS documents across all applications and the open HELiOS documents of the current application.



The latter makes sense with regard to the clarity of the data, the former may make sense if you want to open a DXF file from Inventor in Autocad or if you want to insert an Excel file with parameters for assemblies in your designs as a 3rd party reference. In such cases you can also work with the HELiOS Workspace.

In the **HELiOS Options** of your Multi-CAD application(s), the checkbox **Remove documents that are currently not being edited from Workspace after closing the application** is set to close the sessions of all documents that are not being edited.

With the underlying option **Remove locally changed files** you can also specify whether locally changed documents should be removed from the workspace after closing the application or not.

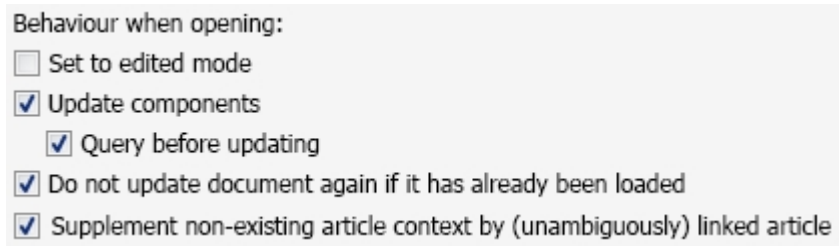
- Remove documents that are currently not being edited from Workspace after closing the application
- Remove locally changed files

Behaviour when opening: Supplement non-existing article context by (unambiguously) linked article

In the configuration dialogue of the **HELiOS Options** of your HELiOS with Autodesk Inventor or SOLIDWORKS, you will find the option **Supplement non-existing article context by (unambiguously) linked article**.

When loading model structures in which nothing is entered, HELiOS orients itself on the assignment to the default article in case of ambiguous article assignments.

The option is currently always active, cannot be switched off at this time, and will be extended by additional features in the future.



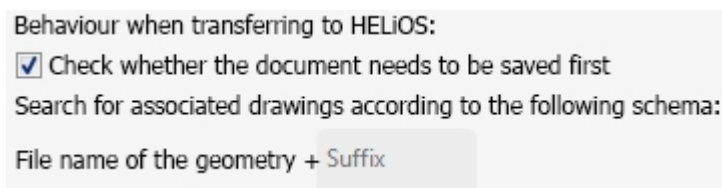
Behaviour when transferring to HELiOS

In the **HELiOS Options** window of your MultiCAD interface /en, under the heading **Behaviour when transferring to HELiOS**, you will also find the new checkbox **Check whether the document needs to be saved first**.

If this checkbox is set to active (default), HELiOS checks when calling **New in HELiOS** or functions based on it, such as **Batch import**, whether the corresponding documents have to be saved first before execution.

This ensures that the state of a document, exactly as it is currently visible to you, is actually transferred to HELiOS instead of an older state.

Beneath **Search associated drawings by following schema** you can manually enter the suffix to identify drawings for the corresponding CAD drawing. This suffix can be found in the drawing file name, which otherwise corresponds to the file name of the model drawing.

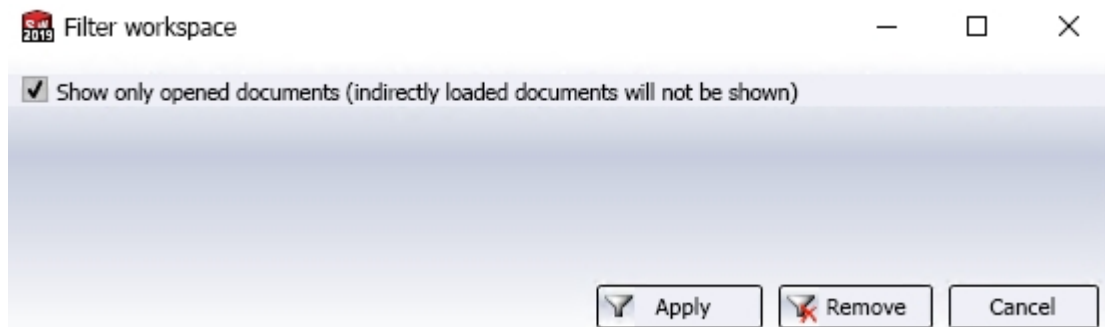


Service Pack 1 2020 (V 2501)

Filter Workspace

The documents displayed in the **Workspace** can now also be filtered so that only the directly opened documents are displayed.

If there are many documents that are open at the same time, this makes the Workspace available to you in linked applications clearer.



Major Release 2020 (V 2500)

Standard Part IDs and document master

The identifiers for standard parts and semi-finished products, which HELiOS needs for the recognition of corresponding parts in the Inventor or SOLIDWORKS interface, are stored in the document master as of HELiOS 2020.

In the context of the update to the 2020 version, the existing identifiers must be migrated.

The current data management at the document master offers many advantages, because this method of working also allows the management of standard parts without a linked article master, allows the linking of several standard parts with an article master (e.g. for handling older data and for semi-finished product documents) and also allows for semi-finished products the recognition of parts by the length of a semi-finished product.



Important:

Please observe the related notes regarding update installations of the HELiOS interface with its respective CAD application.

Taking over of file names

In the Inventor, AutoCAD or SOLIDWORKS interfaces you can use the option **Take over original file name** even if documents with the same name have already been saved in HELiOS. This now allows you to work with descriptive file names consistently.

Unchangeability of the file name is a technical prerequisite for parts, for example, when transferring more complex structures (such as iParts/iAssemblies).

File name display and export functions of CAD applications can therefore also provide more meaningful results.

Note, however, that this can make the folder structure of the work area more complex during export.

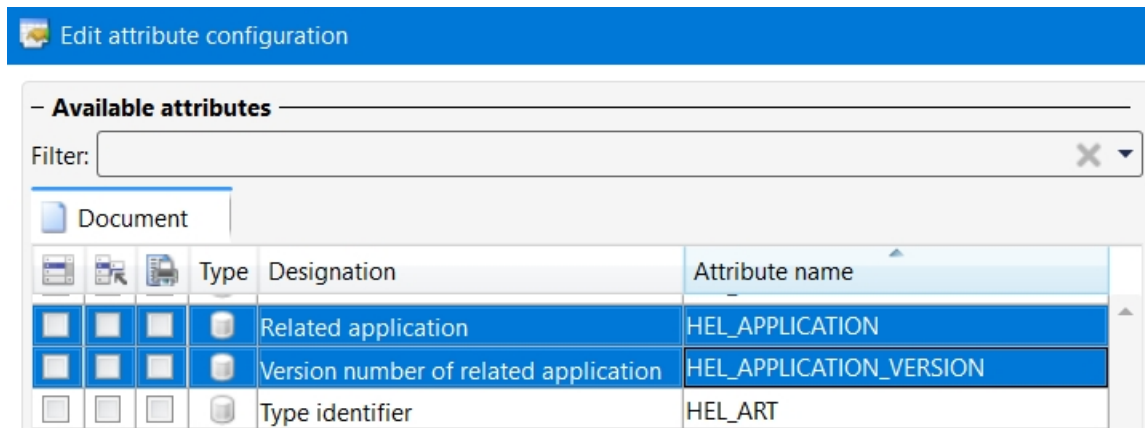
Multi-sheet PDF output for Inventor, AutoCAD and SOLIDWORKS

When exporting multi-sheet drawings in PDF format, the HELiOS Spooler can be configured to combine the PDF files resulting from the individual drawing sheets into a single PDF file.

HEL_APPLICATION and HEL_APPLICATION_VERSION

The database attributes **HEL_APPLICATION** and **HEL_APPLICATION_VERSION** keep track of the application and the version number of the application with which a document was saved to the database.

This can be useful, for example, to search in the HELiOS Database for parts that were created with an older version of a particular CAD application and should be saved again after a version update of the linked software.



Discontinuation of the Versions 2014 and 2015


As of Version 2500 (HELiOS 2020), HELiOS does no longer support the Versions 2014 and 2015 of the following interfaces:

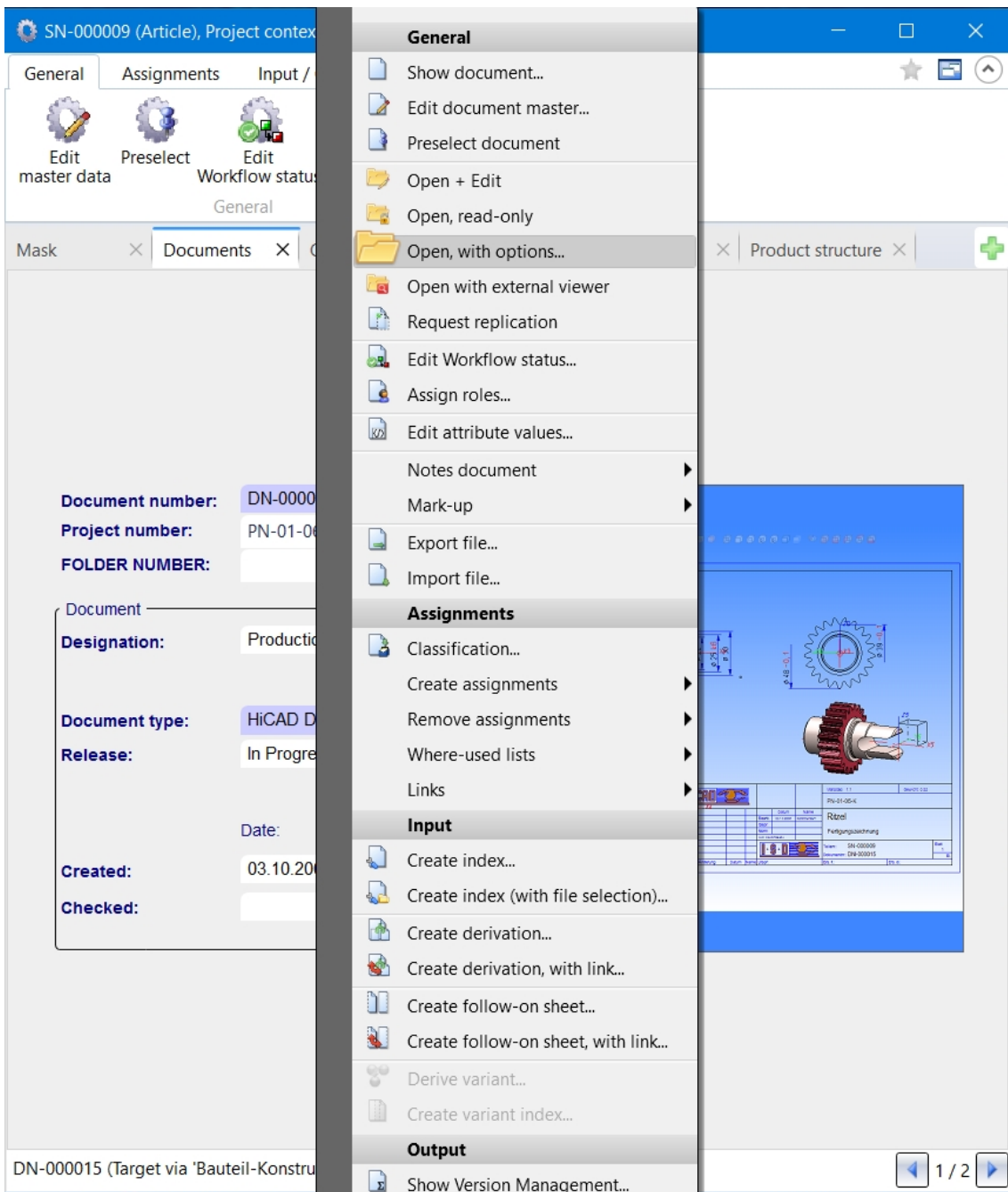
- AutoCAD
- Inventor
- Navisworks
- SOLIDWORKS

HELiOS in HiCAD

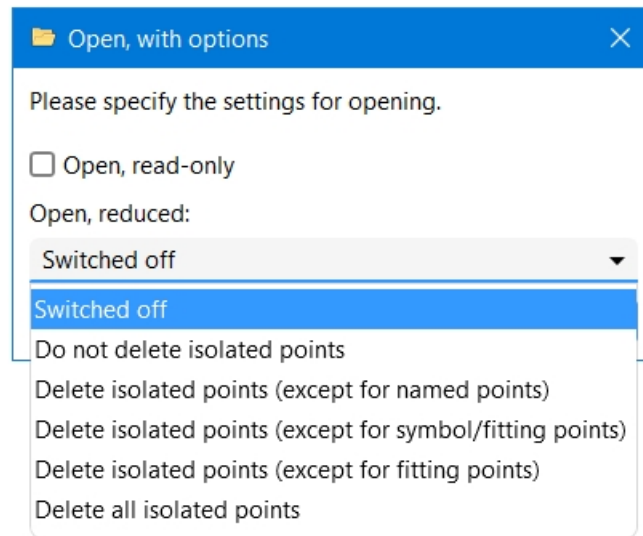
Major Release 2020 (V 2500)

Open, with options: Reduced loading

In the context menu and in the detail window ribbon of a HELiOS document, you will find the new function  **Open, with options** at General, in addition to the familiar functions **Open + Edit** and **Open, read-only**.



If the document is an HiCAD drawing file (SZA format), an extended dialogue with additional options for reduced loading appears. This means that you can optionally select how to proceed when loading with isolated points:



You can leave the **Open, reduced** option **Switched off** at this point or **Delete all isolated points** or **Delete isolated points except for:**

- **named points**
- **symbol / fitting points**
- **fitting points**

You can also activate the **Open, read-only** checkbox in this dialogue if the document should only be loaded for viewing and not for editing.



Please note:

- The **Open, with options** function does not work for multiple selections, but only for single SZA documents.
- If the document opened with options is not an SZA file but, for example, an Office document, it is opened without another intermediate dialogue.
- If the file type of a document is not known or cannot be assigned to an application for opening, a Windows query may appear asking in which application the document should be opened.

HELiOS for AutoCAD

Service Pack 1 2020 (V 2501)

AutoCAD/AutoCAD Mechanical compatibility

The update to HELiOS 2020 Service Pack1 supports the most recent AutoCAD/AutoCAD Mechanical versions.

Major Release 2020 (V 2500)

Important update notes on attribute mapping of title blocks

When performing an **Update** installation to HELiOS 2020, note that the attribute mapping is updated: Until HELiOS 2019, title block attributes in AutoCAD were passed through the heliosac_titleblock.dat and helacblock.xml files.

Starting with HELiOS 2020, the mapping for title block data is done analogously to Inventor, thus eliminating the old files.

At this point, the mapping for HELiOS data in AutoCAD title blocks must be set up manually once again, an automated migration is not possible.

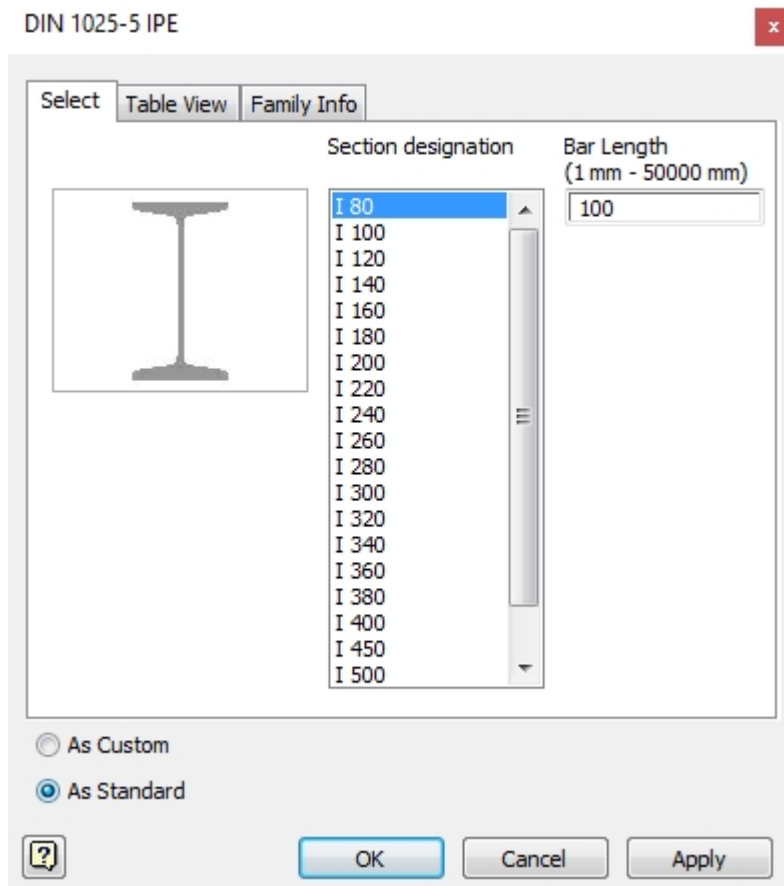
For AutoCAD Mechanical, the change in attribute mapping means that article reference points can also be inserted from HELiOS 2020.

HELiOS for Autodesk Inventor

Service Pack 2020 2 (V 2501)

User-defined semi-finished products

If semi-finished products are not inserted with the **As Standard**, but the **As Custom** setting...



...you can set the option **Insert user-defined semi-finished products from Content Centre as sub-items** in the section **Behaviour when transferring product structure**: of the **HELiOS Options** to ensure that the corresponding semi-finished products are transferred as sub-items into the product structure.

The corresponding item is set to "CAD relevant" and displayed in the **Utilized items** tab of the item master data under **CAD link**.



Please note:

With the update to HELiOS 2502 Service Pack 2 (Version 2502) the virtual database attribute VA_CAD_LINK is replaced by the new Boolean item attribute **CAD link** ("HEL_CAD_RELEVANCE").

CAD relevant items existing in HELiOS are migrated accordingly when updating the database subversion.

Result lists with the CAD attribute are also updated accordingly. However, if interface settings have been imported via the ZIP mechanism of the **HELiOS Desktop** (via **View > Export / Import settings**), the administrator may have to recreate and "distribute" them again.

Link new / existing article



In the **Input** function group of the **HELiOS Part** and **HELiOS Assembly** Ribbon you will find the new functions 

Link new article and  **Link existing article**.

With these you can create a new article or select an existing article to link it to the open document.



Neu (Document / New article index) and New (New drawing index)

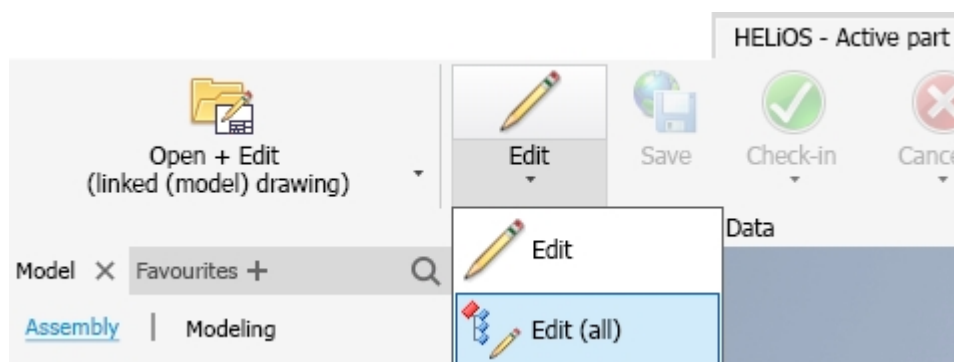
The **HELiOS Part** or **HELiOS Assembly** Ribbon contains the new function  **New (Document / New article index)** and the HELiOS Drawing Ribbon contains the new function  **New (New drawing index)**.

These functions allow to replace an existing AutoCAD drawing with a new Inventor drawing.

"Edit (all)" for active part

New in the **HELiOS - Active part** Ribbon is the function **Edit (all)**, which allows you to edit the active part of an assembly in a model drawing.

With this function all parts of the opened (or selected) document can be set to edited mode (i.e. reserved for exclusive editing by the currently logged in user) with a simple click.



Presentation files in drawings

If a drawing is entered into HELiOS that contains an Inventor Presentation file (IPN), the corresponding article of the presentation file is also linked to the drawing via the database shortcut "HELLiOSAiPn", similar to model files

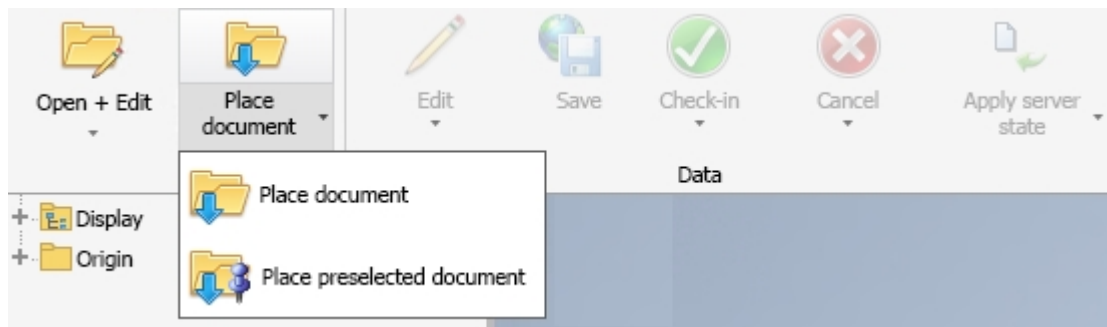
Service Pack 2020 1 (V 2501)

Inventor 2021


The update to HELiOS 2020 Service Pack 1 (V 2501) supports the Inventor Version 2021.

Place document and Place preselected document

In the **Data** function group of the **HELiOS** Ribbon you find two new functions:



With **Place document** you can use the Combined search of HELiOS to select the HELiOS document of an individual part or an assembly, which can then be placed in the active model drawing.

With a click on **Place preselected document** you can place a HELiOS document in the active model drawing, which was previously selected with a simple click on the context menu entry **Preselect document**  , e.g. in the workspace.

Workflow	Article number	Document number	Designation
	SN-026066	DN-000563	
	SN-026067	DN-000564	
	SN-026068		
	SN-026069		
	SN-026070		
	SN-026071		
	SN-026072		
	SN-026073		
	SN-026074		

General

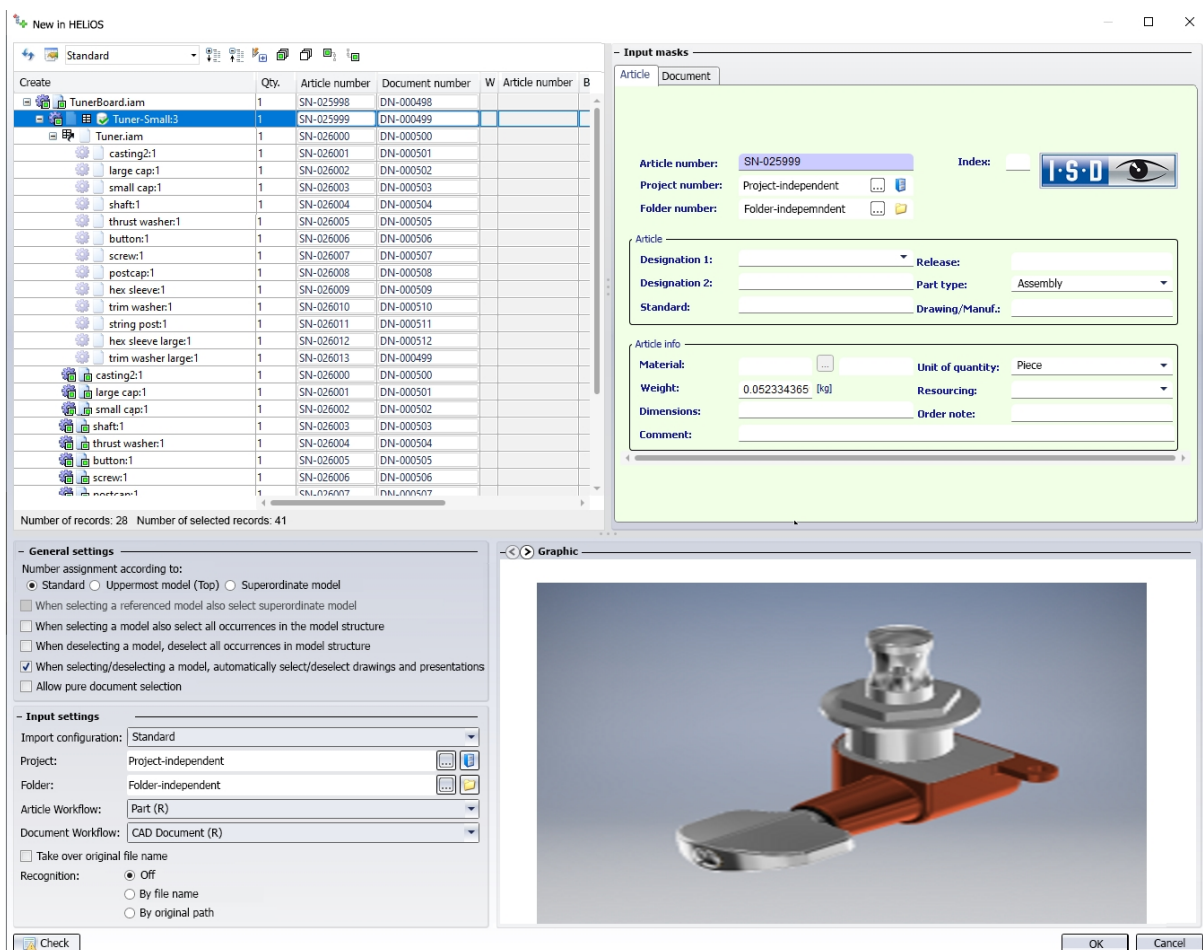
- Show document...
- Edit document master...
- Preselect document**
- Add to favourites

The document can then be placed several times in the model drawing area of Inventor until you complete the placement with the OK command.

Note that this only applies to HELiOS parts and assemblies, other file types cannot be placed.

Improved handling of iParts / iAssemblies

The handling of different configuration sub-types of iParts and iAssemblies in HELiOS has been revised and improved.



For example, when you enter iParts/iAssemblies in the HELIOS database, you can see all the characteristics that can differ in terms of the number of parts and structure, as well as the components of the underlying factory. This factory represents the maximum state with regard to the displayed components.

The same applies to the derivation of the model structure.

In addition, iParts and iAssemblies can also be transferred completely to HELIOS with additional external references (for example, references to derived components or parameter references).

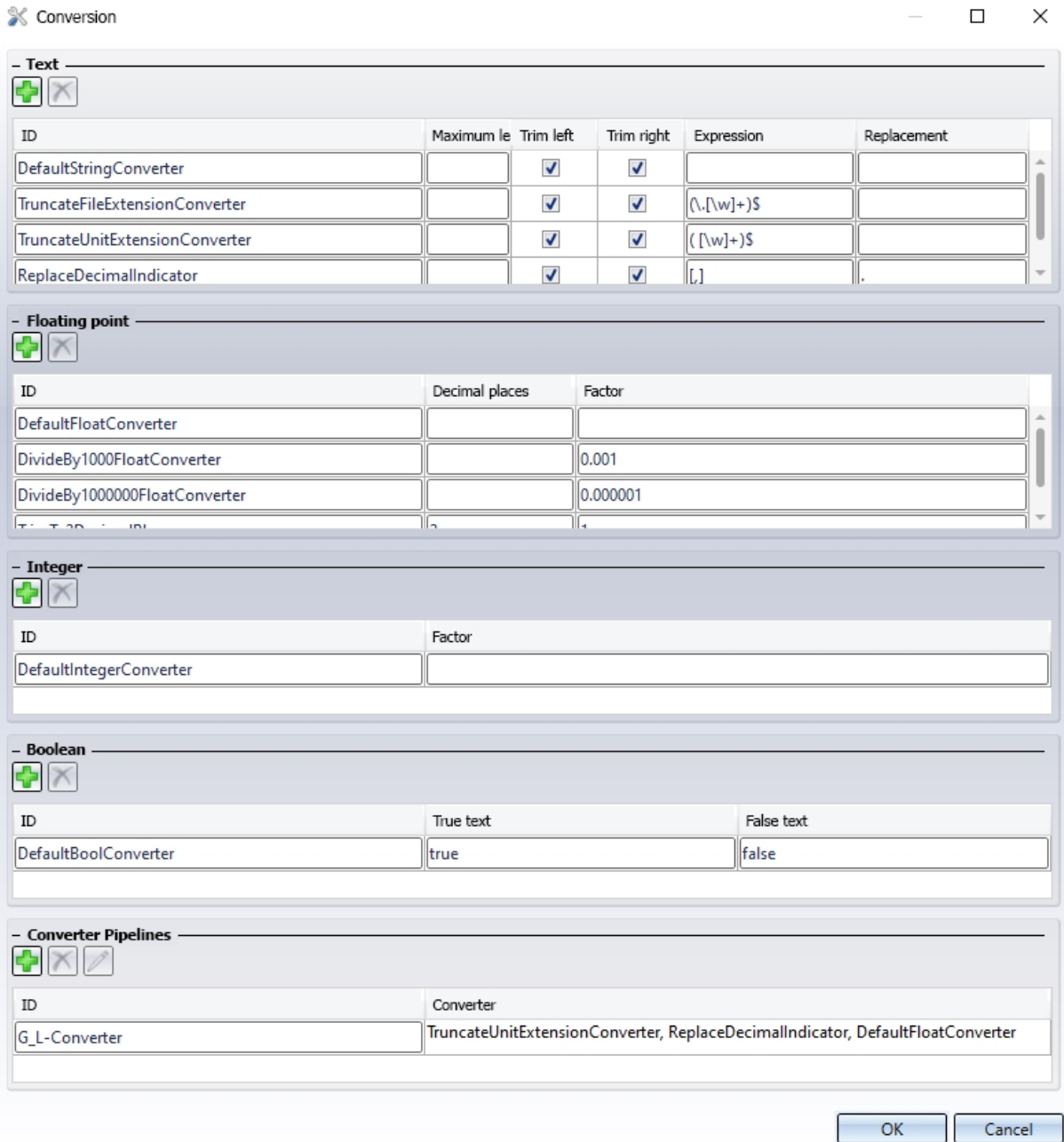
If iParts or iAssemblies have been transferred to HELIOS and drawings are created for individual characteristics,

these can be transferred using the  **New in HELIOS** function.

Converter Pipelines

The **Converter** dialogue window for setting conversion properties within the **Attribute assignments** for **Transfer to HELiOS** or **Export from HELiOS** has been extended.

You can use converter pipelines to define concatenations of conversion conditions.



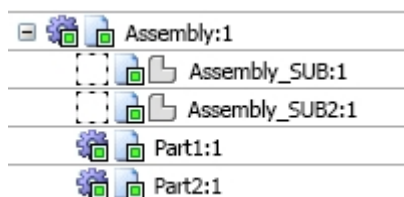
Substitution objects

When working with substitute geometries, the following must be observed with regard to HELiOS:

Assemblies and substitute geometries should not be selected separately when saving to the HELiOS database via

 **New in HELiOS**, nor when calling the function  **Derive model structure**. This also applies to the occurrence of several substitute objects.

In the structure display the substitute objects are marked with an  icon.



For example, if a substitute object is inserted in a different assembled object without the associated assembly, it cannot be taken over without problems at another location without a clear context. When the substitute object is transferred to the database or the model structure is derived, it automatically receives the same article master as the underlying assembly. After the transfer to HELiOS the substitute object is also displayed in the model structure of the document master data.

Model	Qty.	Article number
DN-001141	1	
DN-001142	5	SN-026667
DN-001144	1	SN-026668
DN-001145	1	SN-026669
DN-001143	1	SN-026667



Please note:

- A transfer of assemblies is only possible with full attention to detail. This means that if the assembly contains references to substitute objects, these are visualized accordingly in the structure.
- If substitute objects occur, they are briefly loaded when the **New in HELiOS** function is called, or during derivation, which will be visible to the user.
- If a general component is marked as a substitute object, then Inventor deactivates all links. The corresponding dependencies are not displayed when the substitute object is transferred to HELiOS, which can become a problem if the property as "substitute object" for the component is deactivated again later. This use case is not supported by HELiOS.
- The indexing of substitute objects is currently not yet supported.
- Please also note that updates when loading or calling the **Apply server state (All)** function only affect the currently "visible" parts. I.e., sub-parts of an assembly which are currently loaded as substitute objects are not offered for update.

Major Release 2020 (V 2500)

Important Notes on Update installations

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

Since in the course of the update

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

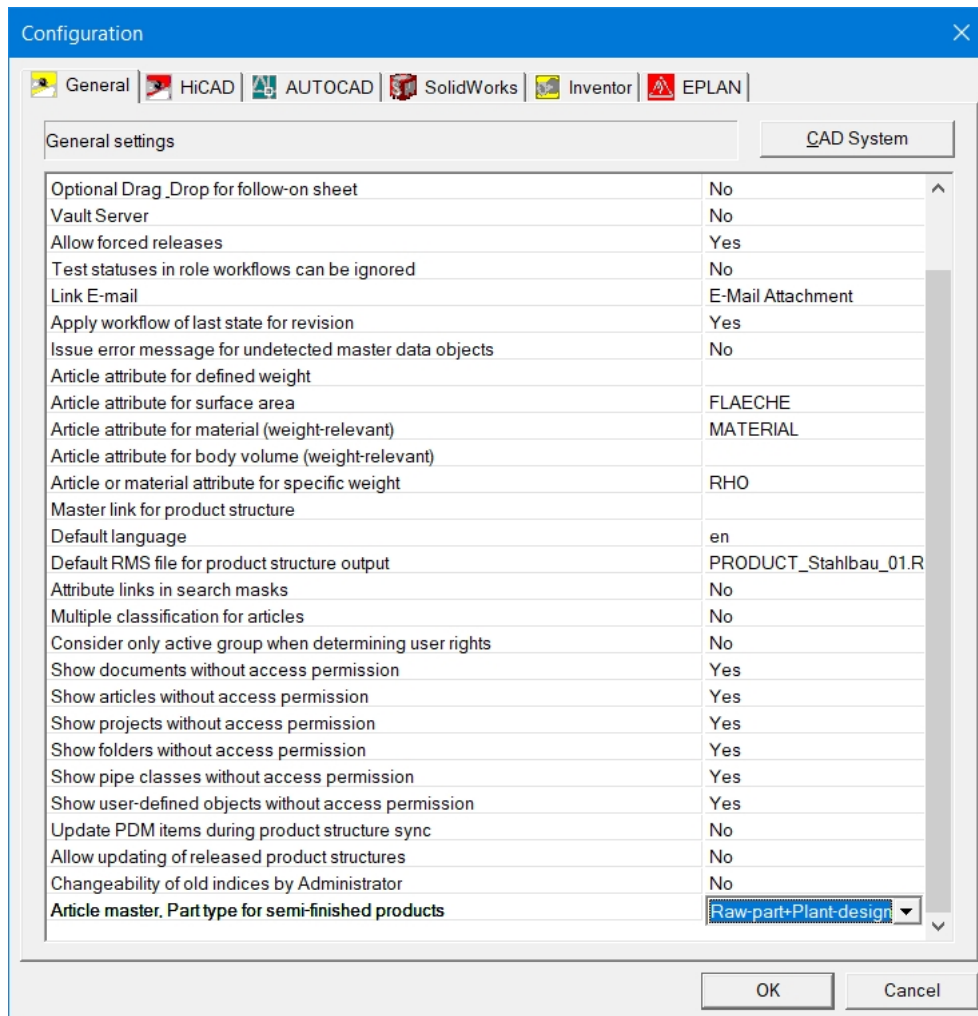
an automated update installation cannot be executed before the migration has been prepared accordingly. In this case, please contact the ISD Group Consulting.

New installations of HiCAD 2020 and its database are not affected.

Identification of semi-finished products as "COMPONENT_TYPE" sub-types

Dependent parts/assemblies of the part type "Semi-finished product+plant construction" are inserted as sub-items in the product structure.

In the **Database** settings of the **HELIOS Options** you can set under **General** which value is to be written to the article master (attribute "COMPONENT_TYPE") by default as part type for semi-finished products. The default setting is "Raw part+Plant design".



Attribute mapping: Transfer of part dimensions

For the calculation of the bounding box of a part and further use of the calculations, the HELiOS attribute mapping for single parts was extended by three virtual attributes.

- Virtual properties	
Sub-type	110
Sheet	False
Width (Y-direction)	30
Height (Z-direction)	5000
Catalogue	11dea241-3e29-4894-9654-6c8d07453054
Component type	2
Length	50000,000 mm
Length (X-direction)	15
Standard part copy	0
Weld seam group	False

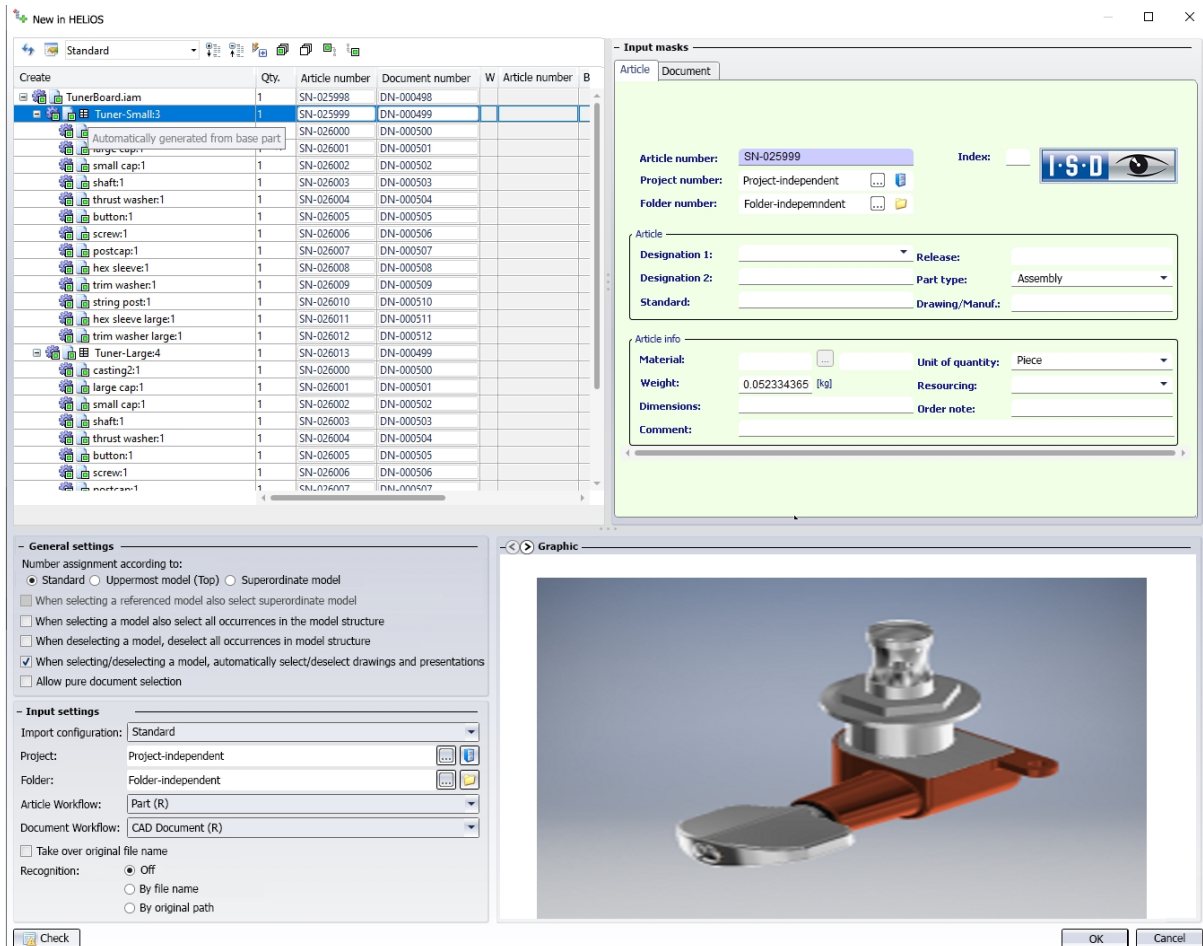
Please note the following details:

- The attributes are only available for individual parts.
- The Bounding Box is aligned with the body coordinate system of the component. Inventor does not guarantee that the bounding box is minimal.
- If individual parts are changed (e.g. shortened) using assembly features, this is ignored by the calculation. The bounding box always refers to the part itself (i.e. to the IPT file on which the part is based).
- The dimensions are always returned in the unit "cm".

Support of part and assembly configurations (iParts / iAssemblies)

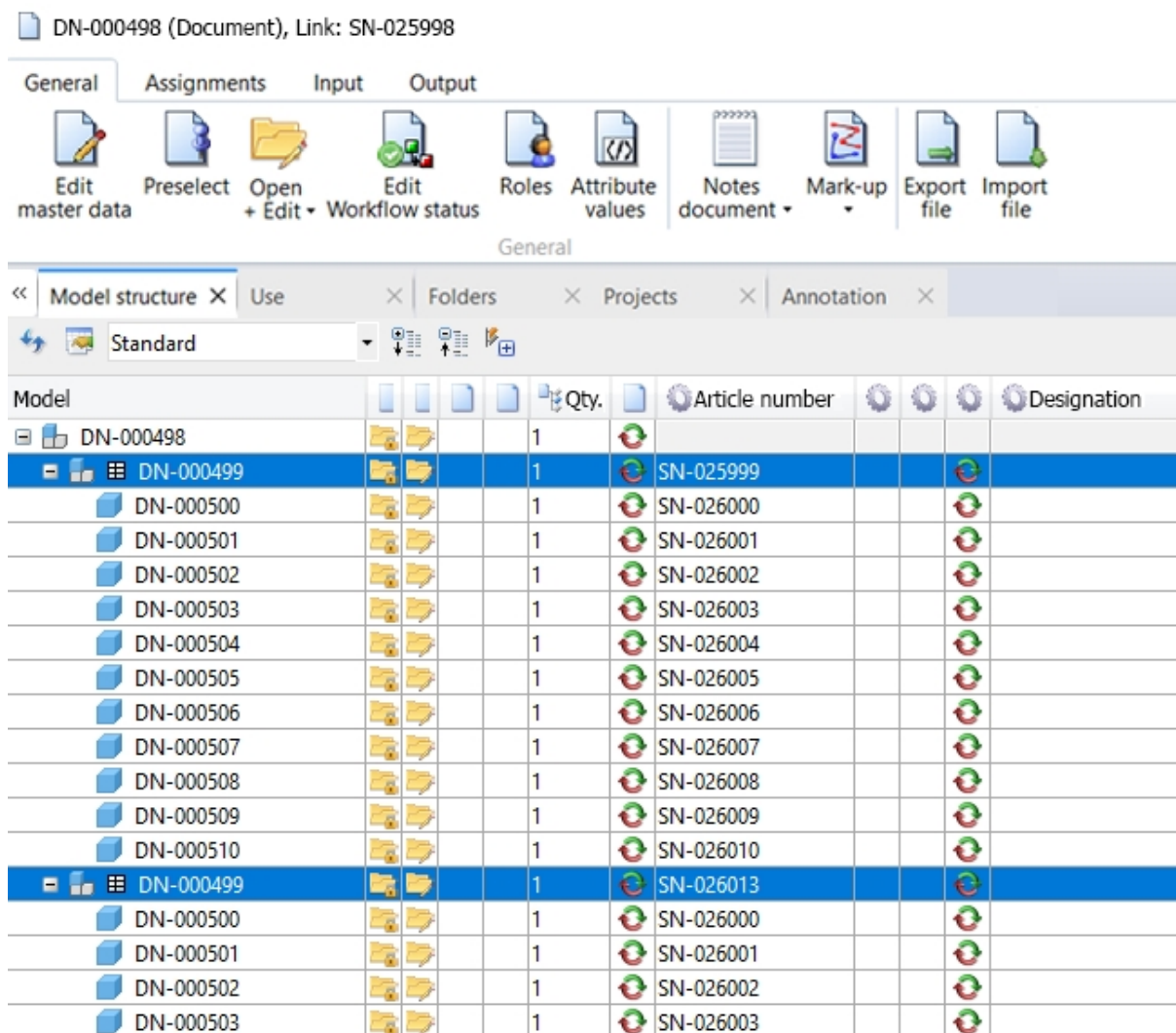
In the past, if iParts or iAssemblies were optionally not copied with the original file name, problems could occur. HELiOS 2020 supports this configuration.

Article assignments in the context of the **New in HELiOS** function are now always configuration-specific, for example.



iParts and iAssemblies are managed in HELiOS as a document master; you can switch between the different configurations in the model structure, for example.

For linked articles, a corresponding configuration context has also been added.



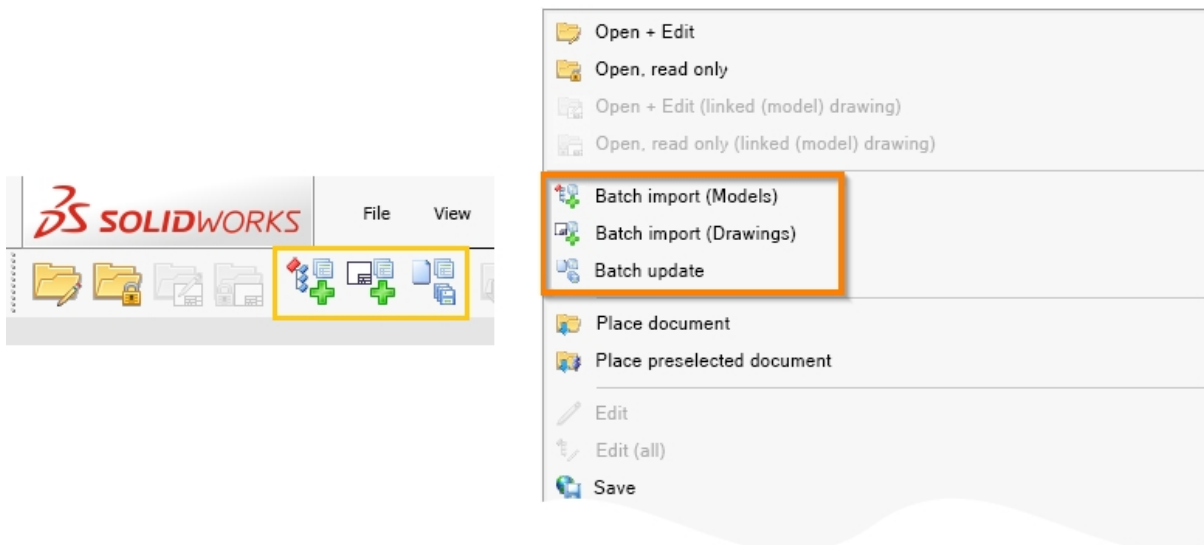
In the past, if iParts or iAssemblies were optionally not transferred with the original file name, problems could occur. As of HELiOS 2020, iParts or iAssemblies are now always transferred to the system with the original file name.

HELiOS for SOLIDWORKS

Service Pack 2 2020 (V 2502)

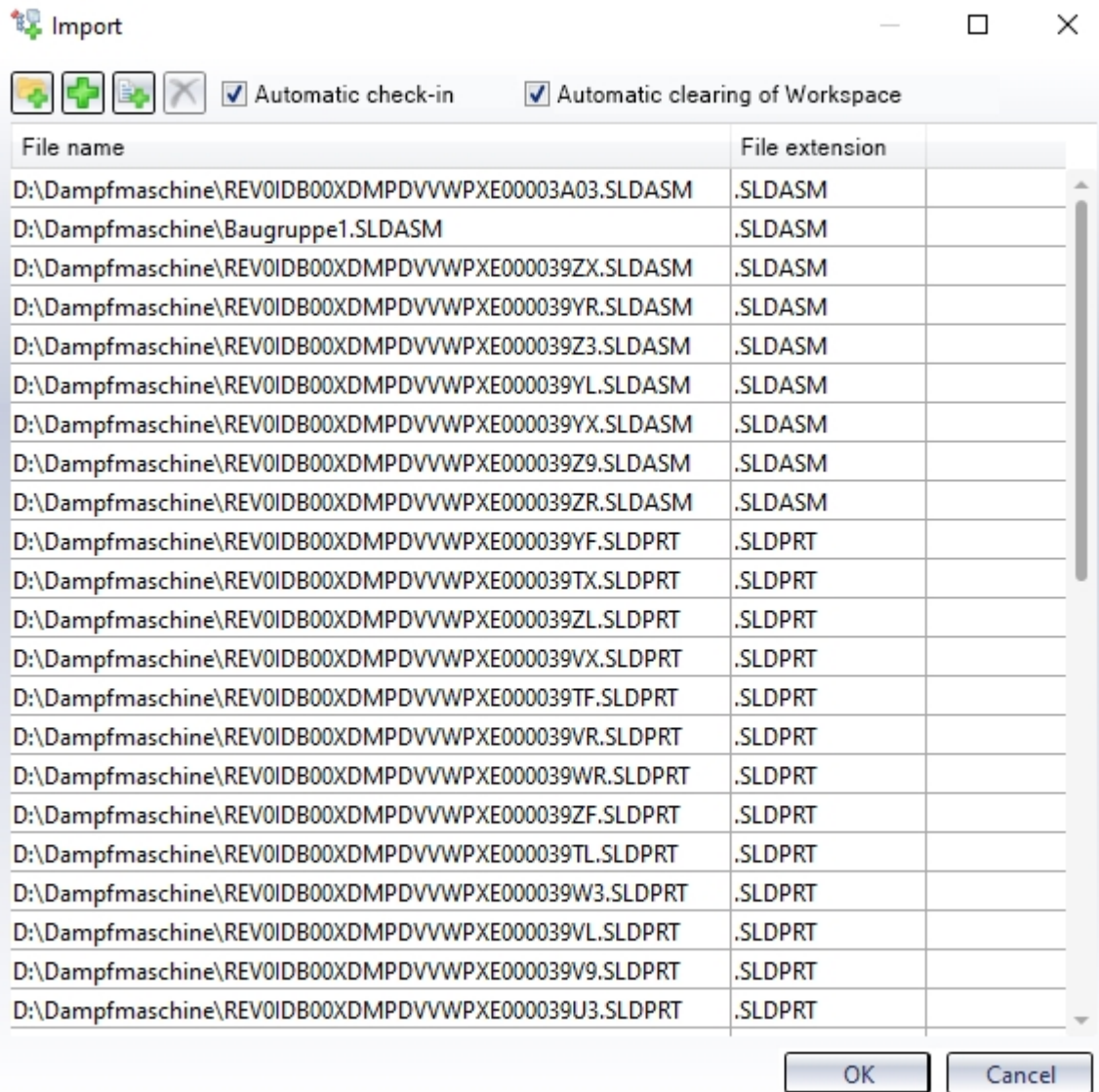
Batch import and batch update

In the HELiOS menu you will find the new functions **Batch import (Models)**, **Batch import (Drawings)** and **Batch update**.



With the **Batch import (Models)** function you can import a variety of files from a directory to HELiOS with a few clicks via a selection dialogue.

When you call the function, a dialogue window opens for selecting the directory from which .ipt and .iam files are to be imported in batch processing.



With the **Batch import (Drawings)** function referenced drawings can be taken over "afterwards", which were not considered during the batch import of the models due to the naming convention.

And with the **Batch update** function you can update a multiple selection of HELIOS documents "in one go" using the combined search.

The documents are loaded, set to edited state, updated and checked in one after the other (they are not automatically removed from the workspace).



In this way you can, for example, perform an update

- of older documents to a current CAD version
- due to changed HELiOS configurations (e.g. if a user has adjusted the attribute mapping and older files have not yet been modified accordingly)
- due to changed CAD configurations
- of document previews
- after a data transfer, if the transferred files have not been saved by the CAD interface (this means "adding" preview images, model and product structures, attribute mappings, etc.)

and avoid time-consuming updates by manually opening and saving documents in each case.

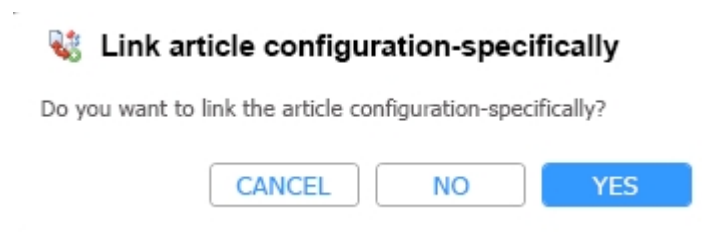
The prerequisite for calling the functions is that no HELiOS document is active.

Link new / existing article

The **HELiOS Part** and **HELiOS Assembly** Ribbon contain the new functions  **Link new article** and  **Link existing article**.

With these you can create a new article or select an existing article to link it to the open document.

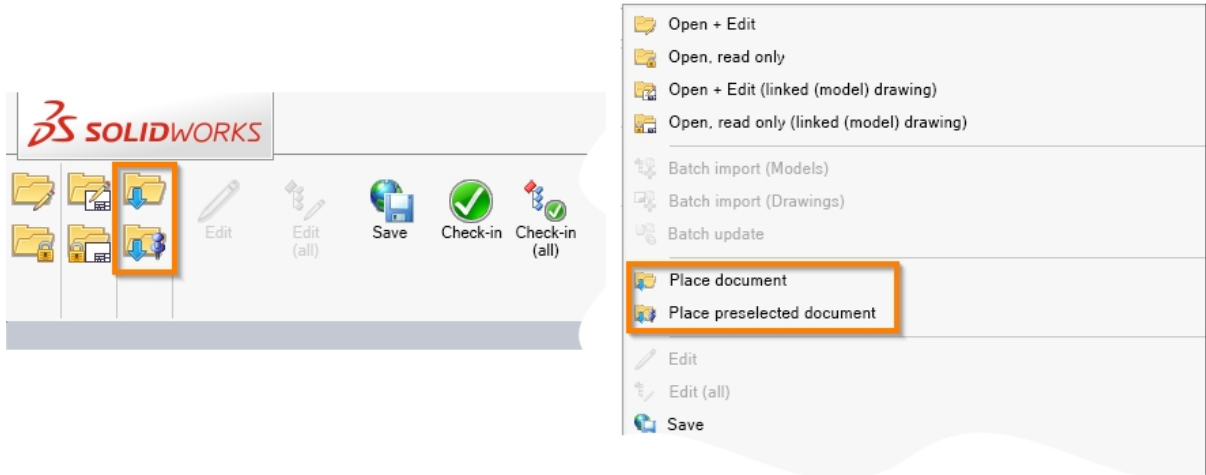
You will be asked if the article should be linked configuration specifically:



The exception are Toolbox parts for which article masters are always linked configuration-specifically (without query).

Place document and place preselected document

In the **HELIOS** menu of SOLIDWORKS you will find the two new functions **Place document** and **Place preselected document**.



With **Place document** you can use the HELIOS combined search to select the HELIOS document of a part or an assembly, which can then be placed in the active model drawing.

With **Place preselected document** you can place a HELIOS document in the active model drawing that was previously selected with a simple click on the context menu entry **Preselect document**, for example in the Workspace.

Workflow	Article number	Document number	Designation
	SN-026066	DN-000563	
	SN-026067	DN-000564	
	SN-026068		
	SN-026069		
	SN-026070		
	SN-026071		
	SN-026072		
	SN-026073		
	SN-026074		

General

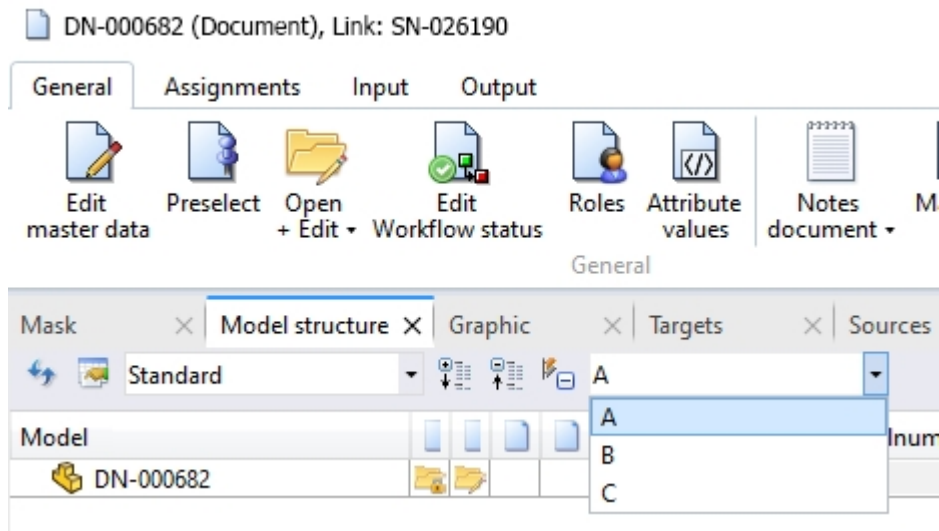
- Show document...
- Edit document master...
- Preselect document
- Add to favourites

The document can then be placed several times in the drawing area of SOLIDWORKS until you confirm the placement with the **OK** command.

Note that this only applies to HELIOS parts and assemblies, other file types cannot be placed.

Toolbox support and configuration sub-types

Various sub-types of standard parts that are managed in the SOLIDWORKS toolbox configuration-specifically are taken over by HELIOS with configuration-specific article masters.

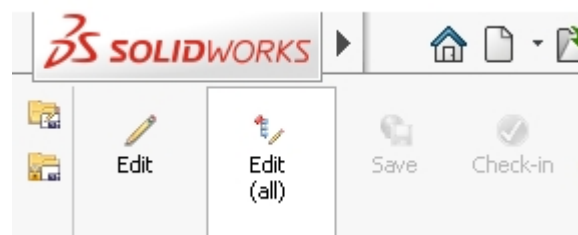


Please note the further notes on the behaviour of standard parts.

"Edit (all)" for active part

New in the **HELiOS - Active part** Ribbon is the function **Edit (all)**, which allows you to edit the active part of an assembly in a model drawing.

With this function all parts of the opened (or selected) document can be set to edited mode (i.e. reserved for exclusive editing by the currently logged in user) with a simple click.

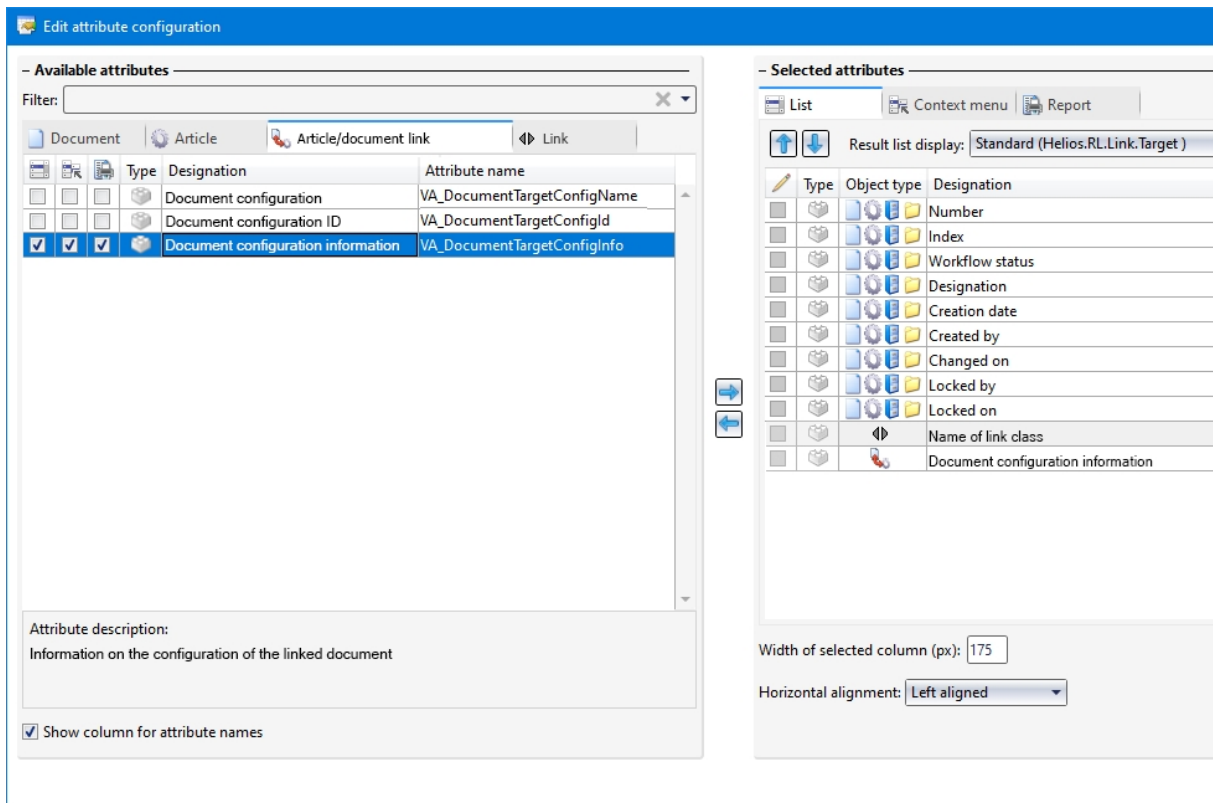


Recognition and preventing of part dependencies

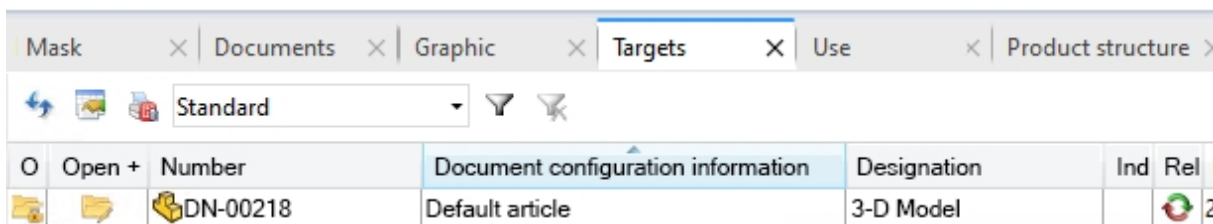
So-called "in-context dependencies" can occur in SOLIDWORKS when the user edits features of sub-assemblies in the context of an assembly, while this feature refers to other elements of the assembly. Such dependencies are recognized by HELIOS and for assemblies that have parts with these dependencies, a call of the **New in HELIOS** function (whose execution would not preserve the dependencies) is prevented.

Document configuration information (VA_DocumentTargetConfigInfo)

In the attribute configuration of article/document links for result lists (e.g. for link line in the article detail window) you will find in addition to the virtual attributes **Document configuration** ("VA_DocumentTargetConfigName", the name of the configuration of a document is stored here) and **Document configuration ID** ("VA_DocumentTargetConfigId", the unique identifier of the configuration of a document) also the new virtual attribute **Document configuration information** ("VA_DocumentTargetConfigInfo").




If a corresponding information is available, the attribute shows you the configuration name, the configuration ID or "Default Article" if the linked article is a default article.





Service Pack 1 2020 (V 2501)


Extended range of HELiOS functions

With the update from HELiOS 2020 to Service Pack 1 (Version 2501) additional functions are available in the ribbon for HELiOS Parts / Assemblies / Drawings or for the Active part:

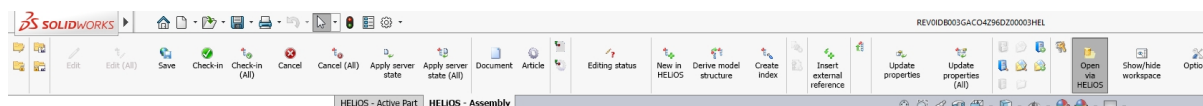
With the function  **Apply server state** you can check whether the currently loaded or the active document is up-to-date. If this is not the case - e.g. because the document has been saved from another location or is available with a newer index, or because the master data of a linked article has changed or is available with a newer index -

you can use this function to transfer the current server status. With  **Apply server state (All)**, all documents that are subordinate to the active document can be brought to the current server state with one click.

With  **Edit (All)**, the complete model drawing (i.e. not only the active document) can be set to edited mode with one click. Provided that you have a corresponding editing permission in HELiOS, as many sub-assemblies and sub-parts as possible can be set to edited mode, taking into account all dependencies.

You can add HELiOS documents to the CAD structure as external reference files using the  **Insert external reference** function. For example, Office files with further information.

In addition, the Ribbon menu provides new functions for editing the workflow status of documents and articles, for exchanging components via the HELiOS database, for opening linked drawings, and for displaying the editing status.



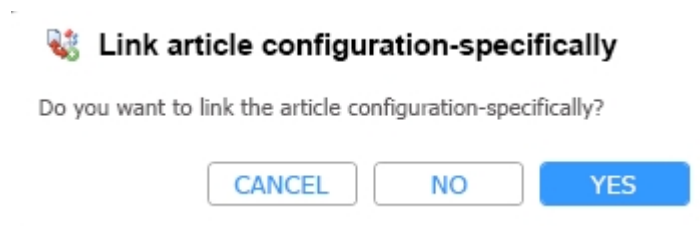
Default articles and configuration-specific articles

When selecting an article for a document (including configuration), you will be asked whether this article is a default article. In principle, a document can be linked to several default articles.

In addition to default articles, there are also configuration-specific articles.

Different configuration characteristics of a document can be assigned either to a unique default article or to an individual configuration-specific article.

If an article context is not unique, you are asked to make a unique assignment.



Major Release 2020 (V 2500)

Important notes on update installations

For an update of the SOLIDWORKS coupling from an older HELiOS version to HELiOS 2020 (Version 2500) or higher (consider the following:

- Since a configuration migration is performed during the update, an automated update installation cannot be performed until some appropriate preparations have been made in your system. In this case, please contact the Consulting department of ISD Group.
- Please also note: When updating the database of an older version to HELiOS 2019 Service Pack 2 or higher, the old workspace is checked for documents in process before each update step. If the check finds corresponding documents, the following message will appear: *The database update cannot be performed because there are still locked documents in old local workspaces that will not be supported in the future. After this update, only workspaces with new management will be supported and an automatic migration is not possible.*

[Click here for more information.](#)


Please also note that the update to HELiOS2020 updates the attribute mapping. The old configuration files are no longer required (heliossw_titleblock.dat, helios_cs_global_config.dat, sw_comp_name.dat).

Since an automated migration is not possible, the mapping must be set up manually once again.

New installations of HELiOS 2020 and associated database are not affected.

HELiOS 2020 with enhanced SOLIDWORKS interface

With HELiOS 2020 (Version 2500) you will find a fundamental revision of the SOLIDWORKS interface in functional and performance terms.

- The HELiOS mask technology has been fundamentally revised to match the latest state-of-the-art.
- There is a new Options dialogue for controlling the update of index levels when loading parts/assemblies.
- You can use the enhanced attribute mapping.
- The current  **New in HELiOS** function for transferring the CAD model structure to the HELiOS database replaces the former "HELiOS Info Center".
- Standard parts are handled configuration-specific: A distinction is made between default articles and configuration-specific articles.

Default article	Document / Configuration	Configuration-specific article	Effective article
A4711	Configuration 1		A4711
	Configuration 2		A4711
	Configuration 3	A4712	A4712
	Configuration 4	A4712	A4712
	Configuration 5	A4713	A4713

Default article	Document / Configuration	Configuration-specific article	Effective article
A4710 A4711	Configuration 1		ambiguous
	Configuration 2		ambiguous
	Configuration 3	A4712	A4712
	Configuration 4	A4712	A4712
	Configuration 5	A4713	A4713

- Furthermore, you can change the user during operation.

SOLIDWORKS 2020

HELiOS 2020 supports the most recent SOLIDWORKS Version 2020.

Navisworks Interface

Service Pack 1 2020 (V 2501)

Navisworks 2021

The update to HELiOS 2020 Service Pack 1 supports the most recent Navisworks version.

HELiOS for Zuken E3 -What's New?

Service Pack 1 2020 (V 2501)

New (Document/Find article)

In the HELiOS menu of your E3 interface you will find the new menu item  **New (Document / Find article)**.

This function call saves the opened document (via the New in HELiOS dialogue window) with a new document master in the HELiOS database, which you can link to an existing article via the automatically called Find article mask of HELiOS.

Service Pack 1 2020 (V 2501)

Enhancement of the HELiOS-E3 interface

The HELiOS interface for the electrical engineering system E3 was extended as follows:

- The article synchronization for E3 components is now bidirectional by means of a synchronization service.
- When transferring an E3 project to HELiOS, the corresponding article master can optionally be searched for in HELiOS. The E3 project is then automatically linked to it.
- E3 projects can now be converted into PDF files using the HELiOS Spooler.

Internet Server

Major Release 2020 (V 2500)

New HELiOS Internet Server

With HELiOS 2020 (Version 2500) there is a new HELiOS Internet Server (HIS) that replaces the previous version. The new HIS is available via the installation DVD. In previous versions, the HIS consisted of the three server components:

Frontend (UI)

Backend (API)

Authentication

Within the scope of the 2020 version, the authentication part has now been integrated into the other two server components. This makes installation and maintenance easier for the Administrator.

The installation is done as usual and very easily via the installation menu of HELiOS or HiCAD.

When updating an older version to the new HIS you need consulting by the ISD Group, because an automatic migration of your specific adaptations from the old HIS to the new HIS is not possible.

Legal notes

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