

A 3D CAD model of a helmet is shown in a blue and orange color scheme. The helmet is semi-transparent, revealing internal components. Several red and yellow tooling elements are positioned around the helmet, including a large red tool at the top left and a smaller red tool at the bottom right. The background is a dark blue gradient with a grid pattern.

hyperMILL[®]

Installation Guide

OPEN MIND Software

© The helmet was programmed and produced by PMSHIN

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1. Scope of delivery

Before starting the installation, please check the product delivered for completeness. The running capability of all OPEN MIND products can be ensured only if the following requirements are in place:

- Compatible hardware and software
- Installed dongle driver
- Plugged-in dongle with activated products
- Installed software

	Content of the product data media			Software copy protection		Licensing	
	Installation	Installation instructions	Software documentation	Computer ID	Dongle (local / server)	Activation code	License
<i>hyperMILL</i> for <i>hyperCAD-S</i>	x	x	x	-	x	x	-
<i>hyperMILL</i> for Autodesk® Inventor®	x	x	x	-	x	x	-
<i>hyperMILL</i> for SOLIDWORKS	x	x	x	-	x	x	-
<i>hyperMILL</i> SHOP Viewer	x	x	x	-	x	x	-
CAD interfaces	x	x	x	-	x	x	-
Post Processors	-	-	x	-	x	x	-

The activation code is supplied by e-mail.



2. Content of the product data media

- Installation of the CAM program *hyperMILL* (including Toolpath Editor, *hyperVIEW*, OPEN MIND tool database) with *hyperCAD-S* or *hyperMILL SHOP Viewer* as optional components.
- OPEN MIND license manager and codemeter dongle driver (local, server) in *hyperMILL* installation integrated.
- Installation instructions.
- Software documentation: Documentation is included on the product data media

Postprocessors are provided in a customer-specific manner.



3. Requesting licence data

Software copy protection

OPEN MIND software and CAD interfaces are copy-protected using Codemeter dongles from WIBU Systems. For local licensing, each computer requires a separate dongle. It must be plugged into a USB interface.

Activation code for licence

The licence management can be implemented independently of the production environment. The range of licensed products per dongle can be tailored with the OPEN MIND Licence Manager according to your requirements, for example, by porting 5X functionality to another editor or to the product extension. In such a case, it is not necessary to replace the dongle.

A licence is the right to use OPEN MIND software such as *hyperMILL* or components.

An activation code allows for one or several licences to be activated or deactivated on a dongle and is not tied to any specific dongle. Activated products on a (randomly selected) dongle are always tied to their activation codes. The activation code is supplied by e-mail.

The purpose of a return is to modify the scope of the OPEN MIND software in use on a dongle, for example, when changing the software package from 'Classic' to 'Expert'. The software package is returned to the activation code and can then be adjusted by OPEN MIND.

The use of a licence server requires a network licence.

4. Install

Overview of the installation process

The installation is always local.

For the CAD-integrated products *hyperMILL* for Autodesk® Inventor® and *hyperMILL* for SOLIDWORKS, a working version of the respective CAD software must have been installed and already started once.



IMPORTANT

The installation requires administrator rights.

Start of the installation

The installation starts automatically. Follow the installation instructions.

In the second step, configure the previously installed *hyperMILL* version using the *hyperMILL* Settings Wizard. For further information, see section *hyperMILL* Settings Wizard.

After the installation process, activate the licences using the Licence Manager. Further information on this can be found in the chapter Licence Manager - Activate and Manage Products.

Installing OPEN MIND software

Install the *hyperMILL*, *hyperCAD-S*, *hyperMILL* SHOP Viewer and OPEN MIND Licence Manager programs:

1. Start installation: Call the installation under **Products**.
2. Select language for the installation: Select the language for the installation.
3. Licence agreement: Read and accept the terms and conditions of the license agreement and click **Next**.
4. Select target folder: Click **Next** to confirm the directory in which the components are to be installed. You will be shown a default path (C:\Program files\OPENMIND) that you can change using the **Change** button.
5. Select and install programs: Select the programs to be installed.



IMPORTANT

A simultaneous installation of *hyperMILL* / *hyperCAD-S* and *hyperMILL* SHOP Viewer is not possible. At the time of installation, you can choose whether to use your computer as a CAD/CAM work station or as a *hyperMILL* SHOP Viewer work station. Subsequent selection is possible in the licence manager.

The OPEN MIND Licence Manager must always be installed, however, it can also be installed separately for use as a licence server, for example.

Now click **Install**. Click **Finish** to complete the installation.

The *hyperMILL* Settings Wizard for the second step, the configuration of a *hyperMILL* installation, starts automatically (see "*hyperMILL* Settings Wizard").

5. *hyperMILL* Settings Wizard

You can use the *hyperMILL* Settings Wizard during *hyperMILL* configuration to define, among other things, the language, measurement system and paths for the files created by *hyperMILL*.

hyperMILL-Settings

Global working space: Specify where the files generated by *hyperMILL* are to be saved. By default, the location is C:\Users\Public\Documents\OPEN MIND. To change this path, click Change and select the required path.

Project paths: If you work with project directories, data generated by *hyperMILL* will be stored here. By default, the location is: C:\Users\Public\Documents\OPEN MIND\Projects.

You can change either setting at any time later in the **hyperMILL settings** (tab: **Application**).

Use project paths: The files generated by *hyperMILL* are saved at the previously specified **Project path**.

Language: Set the language for *hyperMILL*.

Measurement system: Specify the measurement system (**Metric/Inch**) for *hyperMILL*.

CAD platform: The platforms identified during the installation are displayed. Select the required CAD platform(s). Then click **Next**.

Setup application database project

As part of the configuration, you can create databases according to your requirements:

Import databases from an earlier version: This creates a database project on the basis of an application tool database and application macro database from an earlier version of *hyperMILL*.

Empty database project: This creates a database project with an empty tool and/or macro database.

Demo database project: This creates a database project using the available demo databases, see:

```
<Installation directory>/Tool Database/<version>/template database/<language>/demo.db.
```



NOTE

Please note that the demo data in these tool databases is provided to illustrate the various functions and is not intended for production purposes. OPEN MIND disclaims any liability for damages resulting from the use of demo data in a production environment.

New database project: This creates a database project on the basis of any existing databases in the .mdb and .db formats.



NOTE

Please note that you can change all the directories for macro and tool databases at any time later in the *hyperMILL* settings (tab: **Application**).



You can combine databases from different areas. For example, you can combine an empty macro database and a tool database from an earlier version of *hyperMILL* into one database project. You can change the name of the database project as you wish. Click **Next** when you have completed all the settings.

Apply settings

You will be informed that the settings have been applied. The installation and initial configuration of *hyperMILL* are complete. Click Close to close the dialog.

Transfer data

You can use the *hyperMILL* Settings Wizard to transfer data and settings from one PC to another PC. This may be necessary

1. if a PC was replaced or
2. *hyperMILL* if multiple PCs should have the same settings.

Requirements

The following requirements must be met to transfer data and settings from one PC to another PC:

- You must be logged in with the same Windows user account used for *hyperMILL*.
- The user account requires administrator privileges.
- All OPEN MIND applications must be closed.
- It is only possible to transfer data between the same *hyperMILL* version.

Export data

Proceed as follows to export data and settings:

1. Start the *hyperMILL* Settings Wizard manually by double-clicking the **SettingsWizard.exe** file in the installation directory.
Example:
C:\Program Files\OPEN MIND\Settings Wizard\[Versionsnummer]\SettingsWizard.exe.
2. Select **Export Settings** and click **Next**.
3. Enter the path to save the exported data on the **Export Settings** dialogue page. Click **Change** to change the default path. If you have installed multiple versions of *hyperMILL* on your PC, select the version from which the data should be exported under **Version** and click **Next**.
4. The next dialogue page shows an overview of the exported data and settings in the *hyperMILL* **Directories, Admin Settings, Databases, Postprocessors** and **Licence** sections. Click **Next** to start the export.
5. Click **Close** on the last dialogue screen to close the dialogue.

Import data

Proceed as follows to import data and settings:

1. Start the *hyperMILL* Settings Wizard manually by double-clicking the **SettingsWizard.exe** file in the installation directory.
Example:
C:\Program Files\OPEN MIND\Settings Wizard\[Versionsnummer]\SettingsWizard.exe.
2. Select **Import Settings** and click **Next**.



3. On the **Import Settings** dialogue page, click **Change** and select the previously exported *.omSettings file.
4. The next dialogue page shows an overview of the data and settings to be imported in the *hyperMILL* **Directories**, **Admin Settings**, **Databases**, **Postprocessors** and **Licence** sections. Click **Next** to start the import.
5. If data with the same name are already present on the target PC, you will be informed of the import details on the last dialogue page. Click **Close** to close the dialogue.

How does data export/import take place?

- Before the import process, all settings and data are stored in a backup file in the following directory:
C:\Users\Public\Documents\OPEN MIND\backup\backup.omSettings.
- Existing data with the same name on the target PC will **not** be overwritten during the import process. The data will either be saved as a copy (example: databases) or the import will **not** take place at all (example: postprocessors). Information on the import will be summarised (each section separately) in a text file and saved in the following directory:
C:\Users\Public\Documents\OPEN MIND\tmp\Settings Wizard.
- Local, network and mixed environments are supported.
- Missing directories are created.
- No user decisions are required.

6. Licence Manager - Activating and managing products

Typical processes

Overview of typical processes during the activation of products:

Table 1. Separate activation









Initial situation
Separate activation on computer with Internet for <i>hyperMILL</i> licence without Internet access
Licensing process
 Computer with Internet <ol style="list-style-type: none">1. Install the Licence Manager2. Attach dongle to USB3. Start the Licence Manager4. Select local dongle5. Input activation code6. Select and activate products7. Close the Licence Manager8. Remove the dongle

 <i>hyperMILL</i>computer <ol style="list-style-type: none">1. Install OPEN MIND software2. Attach dongle to USB3. Start OPEN MIND software

Table 2. Network licensing

Initial situation
Network licensing for <i>hyperMILL</i> computer with network licence, without Internet access
Licensing process

 <p>Computer with Internet</p> <ol style="list-style-type: none">1. Install the Licence Manager2. Attach dongle to USB3. Start the Licence Manager4. Select local dongle5. Input activation code6. Select and activate products with a network licence7. Close the Licence Manager8. Remove the dongle

 <p>Licence server</p> <ol style="list-style-type: none">1. Install the Licence Manager2. Attach dongle to USB3. Start the Licence Manager4. Select local dongle5. Turn on network server6. Close the Licence Manager

 <p><i>hyperMILL</i>computer (client)</p> <ol style="list-style-type: none">1. Install OPEN MIND software2. Start the Licence Manager3. Select the licence server4. Turn on and use licence server5. Close the Licence Manager6. Start OPEN MIND software

Checking requirements

- Prior to the , please check the following points:
- Is there Internet access?
- Has the OPEN MIND Licence Manager been installed?
- Has a Codemeter dongle been supplied and plugged into a USB interface of the computer?
- Is there an activation code (5x5-digit string of characters)?

When the Licence Manager is installed, the dongle driver is installed automatically.

**NOTE**

The activation and return of licences or OPEN MIND software products requires an active Internet connection. After the activation, the dongle can be used without an Internet connection.

Process

Start the OPEN MIND Licence Manager. The software can be found on the Start menu under OPEN MIND. Finally, close the Licence Manager and start the OPEN MIND software.

**NOTE**

The Licence Manager is installed in `C:\Program Files\OPEN MIND\License Manager` and can be launched using `LicenseManager.exe`.

Search for and select dongle

The Licence Manager looks for all local dongles and all licence servers on the network. On the **Dongle / Licence server** tab, all **Available Dongles / Servers** are displayed. Select a local dongle or licence server (display of server name and dongle number).

The list shows all products allocated to the selected dongle or server with the following information.

Product name: Display of the products available on the dongle and/or licence server as well as, as a branch view, the users of the products. Click on the product name to display the licensed users.

Expires: Expiry date - after this date, the product can no longer be used.

Maintenance: Expiry date - after this date, updates are no longer possible.

Notes: Display of information on postprocessor and machine model licensing.

When a licence server is used, the following is additionally displayed:

Count: Display of number of products licensed

Used:: Display of the currently used number of product licences. If not all licences available are in use, the display will be highlighted in green. If all licences available are in use, the display will be highlighted in red.

If the search does not yield any results, the message 'No active licences found' appears. In this case, plug a dongle into the USB interface or set up a licence server.

If the message 'No active licences found' is displayed or if existing licences are to be managed, switch to the Activation code tab:

Select activation codes

Already existing activation codes are validated automatically and displayed for selection under **Available activation codes** in the Activation code tab. Use **Add activation code** to add a new activation code.

**NOTE**

The complete activation code can be copied to the fields in one process via the clipboard. For this purpose, place the cursor in the first field.

Keep your activation codes in a safe place. The codes will also be required to return products, for example, as part of software maintenance.

Please do not interrupt the activation process as this could damage the dongle.

Once the fields have been filled in, a connection to OPEN MIND is established automatically and the activation code is checked.

✔ Activation code is recognised.

✘ Error, activation code could not be recognised. Check whether the activation code was entered correctly and that there is an Internet connection, for example, check the firewall settings. If necessary, contact your network administrator. Confirm the successful process with **OK**.

Select the required activation code under **Available activation codes**:

✘ Remove an entry from the activation codes.

★ Bookmark an activation code as a favourite that is always displayed at the top.

🔄 Reload the activation codes.

On the **Activation code** dialogue page under **Targets**, choose the dongle, whose scope of licensing needs to be changed.

The list displays all allocated products and test licences with status (Not activated) or the dongles activated through them.

Activate or return

Select the required products from the list and click **Activate licence** and/or **Return licence**.

**NOTE**

- Ensure that the relevant dongle is available locally.

- Ensure that the software has been closed before you use Return.

Activate licence allocates the product to the selected local dongle. The dongle number is displayed. If an update is available, the update will be activated.

Return licence deactivates the product on the selected dongle and returns it to the activation code.

If products are to be returned to OPEN MIND, for example, when changing from local licensing to network licensing, proceed as follows:

1. On the **Activation code** tab, select the activation code from **Available activation codes**.
2. The List displays only the products that must be returned.
3. Click **Return licence**.

**NOTE**

While products still need to be returned to OPEN MIND, the further management of products belonging to the activation code is blocked.

This requires an active Internet connection! A connection to OPEN MIND is established automatically and the changes are implemented.

✔ Change successful

✘ Error, change not possible. Check whether an Internet connection is established. Switch to the **Dongle / Licence server** tab and

🔄 reload by clicking on the Activation codes button.

If the error persists, please contact your Support.

Select the required activation code under **Available activation codes**.

✘ Removes an entry from the activation codes.

★ Bookmarks an activation code as a favourite that is always displayed at the top.

🔄 Reloads the activation codes.

Under **Targets**, select the dongle, whose scope of licensing needs to be changed.

**NOTE**

A dongle for a licence server can be managed locally using any OPEN MIND Licence Manager. For this purpose, plug the dongle into the local USB interface.

Network licence and licence server

On the **Options** tab, select the **Use this computer as a licence server** option if the computer is to be used as a licence server on the local network.

To select this option, you must have administrator rights.

Use the **Use licences from a server** option if you want to access a network licence. An available licence server is accessed automatically via **Locate licence server automatically**. Enter a server with its IP address or name manually in **Server name** if the **Use a specific licence server** option is to be used.

To configure these settings, you must have administrator rights.

**NOTE**

You must start the Licence Manager with administrator rights, for example, using the Windows Run as administrator function. For this purpose, select LicenseManager.exe in the program directory and right-click to open the Windows shortcut menu.



If you are working with network licences, specify a product that is to be started regularly on the computer on the **Start tab under Select base product**. Otherwise, where available and permitted, the local dongle will be evaluated or the most extensive product package available on the network will be started (**Automatic selection**).

You can use **Additional client info** to store a note (for example, phone number and e-mail address) that is displayed for every user when a licence server is used.

Reload on the **Dongle/Licence server** tab starts a new search for available dongles and licence servers. **Group list by users** sorts the list of products in such a way that the products currently in use are shown as being allocated to the users. The status bar displays information on the settings of the local computer.

Proxy authentication

If you use an Internet proxy with authentication in your company, on the **Options** tab you must enter the **User name** and **Password** for the proxy in order to activate the licences.

Afterwards, you can log in using the **Logon to proxy** button. On successful login, the **user name** and **password** are locked for editing and the **Activation code** tab of the Licence Manager is unlocked.

When an Internet proxy with authentication is used, the activation codes are not stored on the system and are also not loaded when the **Licence Manager** is started. They must be entered separately each time a licence is changed.

Specify warning period

On the **Options** tab, you can use the **Warning period** option to specify how many days in advance you wish to be notified of licences that are going to expire. By default, you will receive a warning 14 days before a licence expires.

To change this setting, you must have administrator rights.

Specify start options

Here, you can configure the standard start behaviour of *hyperCAD-S / hyperMILL*.

If you do not make a selection, *hyperCAD-S / hyperMILL* will always start with the maximum available scope of licensing and provide the maximum available product functionality.

For example, if you want to restrict the use of licences in a network environment, you can select the base products and options here that are used on start-up.



NOTE

If you choose an option, for which you do not have a licence, this option will not be loaded on start-up.

An error message, indicating that this option is not available, will also not appear.



7. Administrator manual

Introduction

This manual details the unattended installation and administrative tasks in relation to *hyperMILL* and *hyperCAD-S*. Installation with the user interface is described in the installation guide.

Silent installation of *hyperMILL* / *hyperCAD-S*

Unattended installation can be performed using two methods. It can either be implemented with the `setup.exe` or with the individual MSI packages. We recommend using the `setup.exe`.

In both cases, the product must be configured following installation. The product cannot be started following installation without firstly being configured.

Prior to installing *hyperMILL*, any CAD systems, into which *hyperMILL* should be integrated, are to be installed.

Installation with `setup.exe`

Property	Value	Description
INSTALLDIR	Path	The target path of the installation. The default value is <code><Programs>\OPEN MIND</code> . Subfolders are created automatically.
IS_CAMOBSERVER	0..1	Default: 0. A parameter controlling recognition of the SHOP Viewer. This can be set for initial installation.
/language:LCID	LCID: 1028; 1029; 1031; 1033; 1034; 1036; 1040; 1041; 1042; 1043; 1045; 1046; 1049; 1060; 2052	Sets a system language for the installation process. Determines the language of the installed help. Additional auxiliary languages must be installed separately.

LCID	ISO	HMLANG
1028	CN_TW	chinese_trad
1029	CZ	czech
1031	DE	german
1033	EN	english
1034	ES	spanish
1036	FR	french
1040	IT	italian
1041	JA	japanese
1042	KO	korean



LCID	ISO	HMLANG
1043	NL	dutch
1045	PL	polish
1046	PT	portuguese
1049	RU	russian
1060	SL	slovenian
2052	CN_ZH	chinese

Example:

```
setup /silent INSTALLDIR="c:\open mind\cam" /language:1031
```

Installs the license manager and *hyperMILL* in German in the folder `c:\open mind\cam` without user interaction.

Further command line options for the `setup.exe` can be found online at:

<https://helpnet.flexerasoftware.com/installshield25help/lib/help/library/SteSetupexeParam.htm>

Installation without `setup.exe`

In the case of installation without the `setup.exe`, the system components must be provided manually. *hyperMILL* and *hyperCAD-S* use the following system components.

System component	Version	Licence Manager	<i>hyperMILL</i>	<i>hyperCAD-S</i>
VC-Redist 2005 SP1 x86	6.0.2900.2180		x	
VC-Redist 2005 SP1 x64	6.0.2900.2180		x	
VC-Redist 2008 SP1 x86	9.0.30729.17		x	
VC-Redist 2008 SP1 x64	9.0.30729.17		x	
VC-Redist 2010 SP1 x64	10.0.40219.1		x	x
VC-Redist 2013 Update 1 x86	12.0.21005.1		x	
VC-Redist 2013 Update 1 x64	12.0.21005.1		x	
VC-Redist 2017 x86	14.16.27012.6		x	
VC-Redist 2017 x64	14.16.27012.6		x	x



System component	Version	Licence Manager	<i>hyperMILL</i>	<i>hyperCAD-S</i>
Microsoft .NET Framework 3.5 SP1			x	x
Microsoft .NET Framework 4.5.1		x	x	x
Microsoft .NET Framework 4.5.2		x	x	x
Microsoft .NET Framework 4.6.1		x	x	x
CodeMeterRuntime	6.80.3312.500	x	x	x

The product is installed following installation of the system components.

- Licence Manager
- *hyperCAD-S*
 - Language pack for *hyperCAD-S*
- *hyperMILL*
 - Language pack for *hyperMILL*

The MSI packages support their own properties here.

Property	Value	Description
INSTALLDIR	Path	The target path of the installation. The default value is <Programs>\OPEN MIND. Subfolders are created automatically.
HMLANG	Language	English, German, French, Sets the product language. The product starts in this language following installation.
SUITE_UI	0..1	Indicates whether automatic product configuration should be started. The default value for this property is 0, whereby automatic configuration is not started. Automatic configuration is guided by a user interface and should not be called in an unattended installation.
TRANSFORMS	LCID.mst Example: TRANSFORMS=1033.mst	Transformations (*.mst files) are available for <i>hyperMILL</i> and Licence Manager, which provide language-specific text for start menu entries. The product is offered in these languages.



LCID	ISO	HMLANG
1028	CN_TW	chinese_trad
1029	CZ	czech
1031	DE	german
1033	EN	english
1034	ES	spanish
1036	FR	french
1040	IT	italian
1041	JA	japanese
1042	KO	korean
1043	NL	dutch
1045	PL	polish
1046	PT	portuguese
1049	RU	russian
1060	SL	slovenian
2052	CN_ZH	chinese

The configuration must be performed once installation is complete.

Configuration

For the configuration of *hyperMILL* and *hyperCAD-S*, the `SettingsService` is provided. The `SettingsService` is able to transmit the typical configurations from one system to the next. In special cases, manual intervention is required.

The SettingsService

The configuration of the product can be largely automated by means of the `SettingsService`. For this purpose, the `SettingsService` recognises a series of command line options with which the required operations are started.

```
SettingsService.exe [-allswitch|-cadswitch|-import] [<version>|-disable]
[-disable|-update] [-defaultdb|-macrodb|-colortable] [filepath]
```

-allswitch	Activates/deactivates <i>hyperMILL</i> in all found and supported CAD platforms.	The version number of the version to be activated is required or -disable. (Specialisations: -tdswitch, -swswitch, -invswitch, -hcswitch available for thinkdesign, , , <i>hyperCAD-S</i>)
-cadswitch	Activates the COM interfaces of the <i>hyperCAD-S</i> specified under <version>	



-import	Imports the specified settings file	
---------	-------------------------------------	--

Example

Initialises the system for the use of *hyperMILL* xx.x in all supported CAD platforms and makes the standard databases for tools and macros plus the standard colour tables available.

<i>hyperMILL</i> product version	xx.x (internal version)
2020.2	26.0
2021.1	27.0
2021.2	28.0

```
SettingsService.exe -allswitch xx.x -update -defaultldb -macrodb -colortable
```

Example

Removes all *hyperMILL* versions from all supported CAD platforms.

```
SettingsService.exe -allswitch -disable
```

Example

Removes *hyperMILL* xx.x from the supported thinkdesign installations.

```
SettingsService.exe -tdswitch xx.x -disable
```

Example

Registers the thumbnail display in Windows Explorer via *hyperCAD-S* xx.x.

```
SettingsService.exe -cadswitch xx.x
```

Example

Imports the settings from a file. The data is imported for the version that the SettingsService installed.

```
SettingsService.exe -import sample.settings
```

Registry

There are registry keys that affect the behaviour of *hyperMILL* during installation or the first application start.

Registry keys

- HKEY_LOCAL_MACHINE\SOFTWARE\OPEN MIND
 - common\Configuration\
 - GlobalWorkingSpace (REG_SZ) refers to the global working space.
 - ProjectDirectories (REG_SZ) references the project directories.
 - OMConfig (REG_SZ) refers to the CFG files that are required for licensing.
 - Language (REG_SZ) defines the default language of *hyperMILL*.
 - TemplateToolDB (REG_SZ) references the tool database that is loaded if the document and application databases failed to load (emergency database).
 - common\<Product Version>\Languages
 - contains the lists of languages that you can select for *hyperMILL*.



All further registry keys are user-specific and cannot be used during the installation.

Security settings

hyperMILL was developed to allow users to work with power user rights. If it becomes necessary to run *hyperMILL* with limited rights, some security settings will have to be adjusted.

8. Hardware / software requirements

OPEN MIND Technologies AG (April 9, 2020)

The installation checks automatically whether a 64-bit program version of the software products can be installed and whether all requirements for the respective variant on your computer have been met. If necessary, any missing but necessary components or programs will be installed automatically.



NOTE

If Microsoft .NET Framework is installed, your system may have to be restarted afterwards.

	<i>hyperMILL</i> for <i>hyperCAD-S</i>	<i>hyperMILL</i> for Autodesk® Inventor® (1)	<i>hyperMILL</i> for SOLIDWORKS
Computer equipment			
USB connection (min. 2.0)	x	x	x
Processor (at least) 4 Cores > 2.2 GHz	Intel Core i5	Intel Core i5	Intel Core i5
Processor (recommended) 8 Cores > 4 GHz	Intel Core i9	Intel Core i9	Intel Core i9
RAM memory GB (at least)	16	16	16
RAM memory GB (recommended)	32	32	32
Free disk space (GB) ⁽²⁾ CAD/CAM product	10	10	10
OpenGL-compatible graphics card ⁽³⁾	x	x	x
Possible operating systems Windows 10	x	x	x

(1) Component of Autodesk Inventor Series.

(2) Recommended memory for use of the respective product; with increasing complexity of the machined model, more memory is required.

(3) Suitable graphics card for CAD/CAM workstation. Recommendation: NVIDIA Quadro with at least 2 GB,

For *hyperMILL* for Autodesk® Inventor® and *hyperMILL* for SOLIDWORKS, the recommendations of the respective CAD manufacturer apply.



For *hyperMILL* in *hyperCAD-S* the following applies: correct functioning when using AMD ATI-graphic cards cannot be guaranteed.

hyperCAD-S requires a graphic card with an OpenGL-accelerated graphic card driver OpenGL Version 4 or higher. Please consult the OPEN MIND website and the overview of graphic cards and graphic card drivers that are recommended for use with *hyperCAD-S*.

**NOTE**

The hardware listed there has been automatically tested for use and is being used in day-to-day work. This does not mean that *hyperCAD-S* can be run only with the hardware recommended. *hyperCAD-S* should run on any graphic platform with a full implementation of OpenGL.

Windows does not support any OpenGL-accelerated drivers. As a user, you must install a manufacturer's or OEM driver for the direct use of hardware-accelerated OpenGL. These drivers are available from the websites of most graphic hardware manufacturers.



9. Trademarks

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