

MagiCAD



TABLE OF CONTENTS

GENERAL	3
SELECTING INSTALLATION PACKAGE	3
UPDATING EXISTING SOFTWARE	4
BEFORE YOU INSTALL MAGICAD 2020	5
INSTALLING MAGICAD ON A SINGLE WORKSTATION	6
SETUP ARCHITECTURE	6
HOW TO CHECK THE INSTALLED MAGICAD RELEASE VERSION	11
LICENSING	11
USER SETTINGS UTILITY	11
PROGRAM DIRECTORY STRUCTURE OF MAGICAD	13
LOCATION OF FILES THAT CAN BE MODIFIED AT RUNTIME	13
RUNNING THE APPLICATIONS	14
Program shortcuts	14
Startup script	14
CHECK FOR UPDATES	15
INSTALLING MAGICAD ON MULTIPLE WORKSTATIONS	16
MSI INSTALLATION PACKAGE - SILENT INSTALLATION	16
Sample installation batch files	19
EXE INSTALLATION PACKAGE	19
Sample installation batch files for .exe package	19
Silent installation of patch package	20
FREQUENTLY ASKED QUESTIONS	21
HOW CAN I GET BACK MISSING MAGICAD RIBBON TABS?	21
WAS THE PATCH INSTALLED SUCCESSFULLY? I CANNOT FIND IT IN PROGRAMS AND FEATURES	
HOW CAN I UNINSTALL A PATCH?	21
THE INSTALLER DOES NOT FIND THE INSTALLATION PACKAGE	22



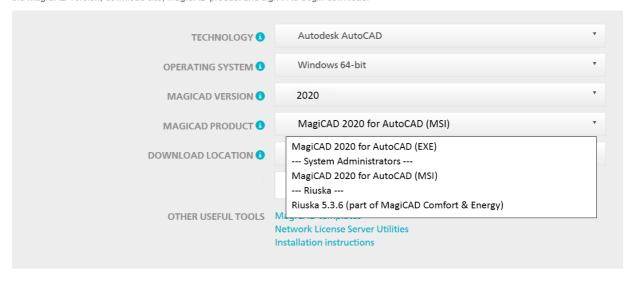
GENERAL

SELECTING INSTALLATION PACKAGE

First, go to MagiCAD Download Portal: https://portal.magicad.com/Download/GetProductCategoryList?categoryId=1

Download MagiCAD

Welcome to the MagiCAD download page. To download MagiCAD installation package, define Autodesk technology and operating system, select the MagiCAD version, download site, MagiCAD product and sign in to begin download.



Note: <u>Before beginning the installation process</u>, please familiarise yourself with the instructions on installation and license activation in this Installation Guide.

In the MagiCAD Download Portal, the EXE and MSI installation packages are available in the **MAGICAD PRODUCT** section. With Update Releases, you also have the option to download the relevant installation package directly via MagiCAD's Check for Updates function.

Both of the installation packages install the full version of the MagiCAD Release, but there are differences in the installation procedure. Select the procedure which best suits your needs:

1. MagiCAD 2020 for AutoCAD (EXE)

- For manual installation. This is the default installation option for users who have administrator rights.
- Can be installed silently via command line, but the only available parameters are language and install location. If you need more installation parameters, use the MSI package

2. MagiCAD 2020 for AutoCAD (MSI) (---System Administrators---)

- This is the default installation option for System Administrators.
- Use this package if you have to use command line parameters.
- Must be installed from Admin Command Prompt.



UPDATING EXISTING SOFTWARE

Download MagiCAD

Welcome to the MagiCAD download page. To download MagiCAD installation package, define Autodesk technology and operating system, select the MagiCAD version, download site, MagiCAD product and sign in to begin download.



With Update Releases, when updating your existing installation, you have the option to download the relevant installation package directly via MagiCAD's Check for Updates function.

Note: Before beginning the installation process, please familiarise yourself with the instructions on installation and license activation in this Installation Guide

There are three different Update Release installers available in the **MAGICAD PRODUCT** section of the Download Portal:

- 1. MagiCAD 2020 for AutoCAD full installation incl. Update Release (EXE)
 - If you do not have MagiCAD 2020 installed, select this package. If you have MagiCAD installed, you need to uninstall it before installing this package. The package installs both MagiCAD 2020 Release and Update Release Patch.
- 2. MagiCAD 2020 for AutoCAD Update Release Patch (---MagiCAD Update---)
 - An existing MagiCAD 2020 installation must be found on the PC. If you have MagiCAD 2020 release already installed on the PC, use this installation package. The newest patch will always include the previous Update Releases. Activation codes are not needed for the Update Release patch installation.
- 3. MagiCAD 2020 for AutoCAD (MSI) (---System Administrators---)
 - This MSI package does NOT include the Update Release Patch.
 - Upgrade to Update Release by installing MagiCAD 2020 for AutoCAD Update Release Patch
 - Use this package if you have to use command line parameters



BEFORE YOU INSTALL MAGICAD 2020

Platform requirements

This program version supports AutoCAD from version 2016 to version 2020 and the corresponding versions of Architecture (Architectural Desktop) and MEP (Building Systems).

NOTE: If you have an older MagiCAD version installed:

It is recommended to uninstall older MagiCAD version before installing the new version. It is, however, possible to upgrade an older version of MagiCAD to this version, if you do not change your AutoCAD version. If you intend to install the new version on another AutoCAD platform than the older version, you must first remove the old version of MagiCAD.

If you change both AutoCAD and MagiCAD versions and intend to uninstall your older AutoCAD version, uninstall MagiCAD before you uninstall AutoCAD.

Remember to back up all your important MagiCAD files before you uninstall your older MagiCAD versions or start installing MagiCAD.

Uninstall the old version(s) through the Control Panel (Add / Remove Programs).

If your previous version is 2015.4 or earlier, remove also the License Management Utility and Check for Updates, as the installation procedure has changed and the utilities no longer have separate Add/Remove Programs items.

Start and exit AutoCAD

To be able to create the necessary shortcuts and registry settings, the Setup needs to first determine which AutoCAD version MagiCAD will be installed on.

Before you start the MagiCAD Setup procedure, start and close the AutoCAD version on which you want to install MagiCAD. This way you can be sure that MagiCAD is installed on the right version of AutoCAD (AutoCAD saves the status of the most recent AutoCAD session in the registry, which the MagiCAD Setup procedure will then retrieve).

Alternatively, if you perform the MagiCAD Setup procedure on several workstations over the network, you may prefer to specify the AutoCAD version information in the installer properties. In this case, the MagiCAD Setup procedure will utilise the properties that you specify. For further information, see chapter "Installing MagiCAD on multiple workstations".



INSTALLING MAGICAD ON A SINGLE WORKSTATION

SETUP ARCHITECTURE

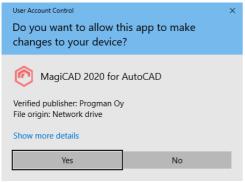
This chapter describes a typical procedure of MagiCAD installation on a single workstation. In larger corporate networks also silent installations may be performed; in that case, see chapter "Installing MagiCAD on multiple workstations" and contact the technical support if necessary.

Administrator privileges are required when running MagiCAD Setup.

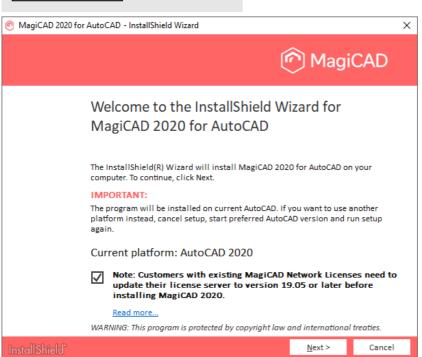
The installer for a single workstation consists of several application setups:

- MagiCAD for AutoCAD
- License Management Utility
- · Check for Updates

When you run the setup executable, the following dialogs are displayed:



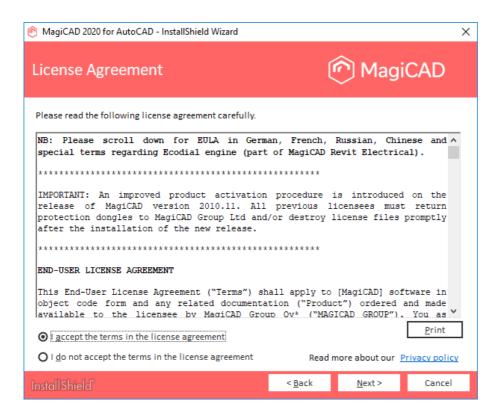
If User Account Control is enabled, installation requires permission to continue. If this dialog appears, Click Yes.



In the start dialog you can see the name of the platform on which MagiCAD will be installed. Customers with existing MagiCAD Network Licenses need to update their license server to version 19.05 or later before installing MagiCAD 2020. Read More...

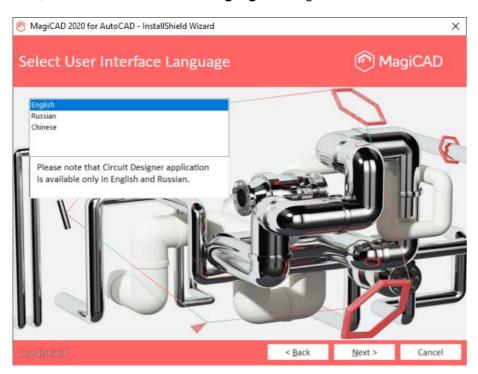
Check note and click *Next* to continue.





You must read and accept the license agreement to proceed with the MagiCAD Setup procedure.

Next, select the **User Interface Language** for MagiCAD.



If you select Chinese as the user interface language, the program will load online product databases (product libraries) from a server that is located in China. You can, however, change this setting later in the user settings utility.



Select the **Destination Folder**. If you want to change the default folder, click *Change* and select a new Destination Folder. When the preferred Destination Folder has been defined, click *Next*.





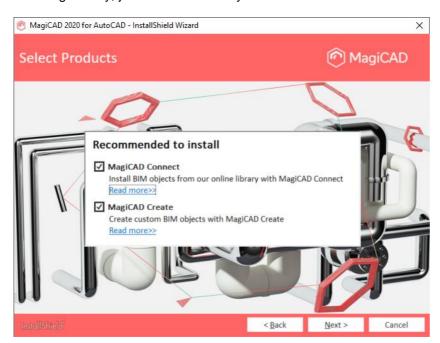


During MagiCAD installation it is now possible to install additional tools which will make design work easier. It is optional but recommended to install the following applications:

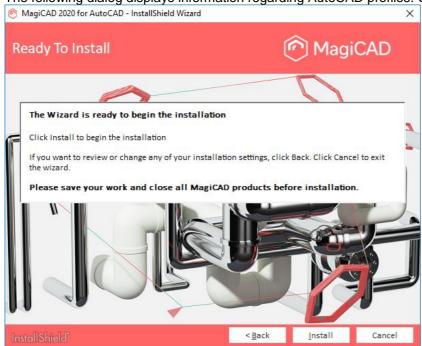
MagiCAD Connect enables you to access MagiCAD Cloud libraries and selection tools without leaving your MagiCAD project. You can insert BIM objects from MagiCAD Cloud directly into your project and use selection tools to select, configure and insert manufacturer products.

MagiCAD Create offers a fast and easy way to create custom MEP-specific BIM objects and libraries.

Installing is easy, just check the tools you want to install and click Next.

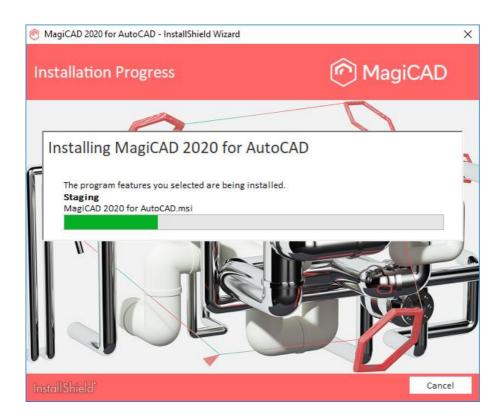


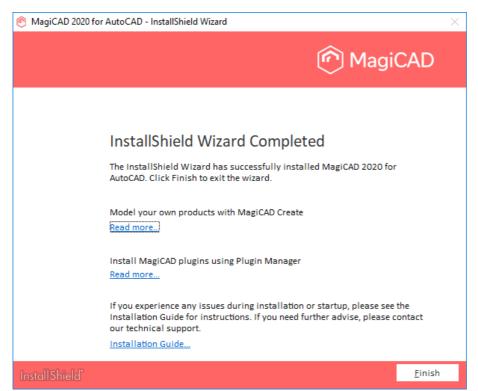
The following dialog displays information regarding AutoCAD profiles. Click Next.



It is important that you save your work and close AutoCAD before continuing. Click *Install* to continue. The MagiCAD Setup will then begin copying files and making the necessary settings.







Click Finish to complete the setup.

When the MagiCAD Setup procedure has been completed, **please check that the program license is available**. Follow the instructions for license usage and activation in the chapter "Licensing".



HOW TO CHECK THE INSTALLED MAGICAD RELEASE VERSION

The Comments column in Programs and Features displays the version, e.g. MagiCAD Release: 2020.

If the Comments column in Programs and Features is not visible, right-click the column title bar, select 'More...', select 'Comments' and click 'OK'.

LICENSING

MagiCAD can be used with two types of licenses:

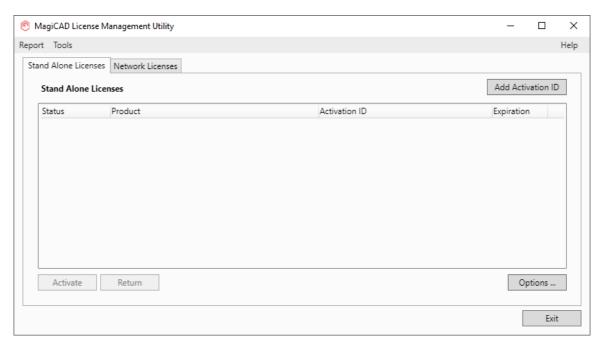
Stand-alone licenses, which are activated for a specific workstation. Internet connection is required when the licenses are activated. However, when the licenses have been activated, the program can be used also when disconnected from the network.

Network licenses, which are stored on a network server.

If your company's IT administrator has enabled license borrowing, you can borrow the application licenses to be used while disconnected from the network.

Setting up a network license server is described in a separate document.

Both license types are managed at the workstation using the license management utility. The shortcut link to the utility can be found in the *MagiCAD\ Tools* desktop folder.



If the version of the MagiCAD license currently activated on your workstation is 2015.11 SR-1 or older, you need to return the old license before you can activate the new license.

Select the product and click the Return button.

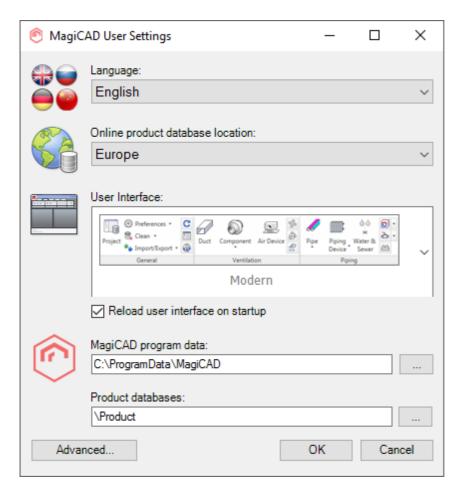
USER SETTINGS UTILITY

With this utility it is possible to change the user interface language and modify the path / template file settings for MagiCAD applications.

The available user interface languages are

- English, French, German and Russian for Circuit Designer
- English, French, German, Russian and Chinese for other applications





The User Settings utility can be accessed at any time after the installation using the shortcut link in the *MagiCAD\MagiCAD for AutoCAD – Utilities* desktop folder.

MagiCAD will automatically check whether the settings have been defined for the current MagiCAD version. If the User Settings utility has not been run yet, the User Settings utility will be opened automatically.

Note that if the end-user is different from the user who installed the program, the settings made during installation do not apply to the end-user. In this case, the end-user needs to run the utility separately.

See "Read Me First" document in the *MagiCADWagiCAD for AutoCAD – Documentation* desktop folder for more information about the User Settings utility.



PROGRAM DIRECTORY STRUCTURE OF MAGICAD

The program executables are mainly installed to the **Destination Folder** selected during the MagiCAD Setup procedure. All MagiCAD applications (*Heating & Piping and Ventilation, Electrical, Room, System Designer, Circuit Designer* and *Product Modeller*) are installed in the same directory.

The program directory includes also the following subdirectories:

Directory	Contents	
Plugins	Third-party plugins for MagiCAD	

License Management Utility is installed in

C:\Program Files\Common Files\MagiCAD Shared\License Management Utility

Check for Updates is installed in

C:\Program Files\Common Files\MagiCAD Shared\CheckforUpdates

LOCATION OF FILES THAT CAN BE MODIFIED AT RUNTIME

In Windows 10, Windows 8 and Windows 7 the location is the following:

C:\ProgramData\MagiCAD

Directory	Contents	
Help	Help files	
ReadMe	"Read me first" instructions	
Support	Customisation files (menus and toolbars)	
Product	Product databases	
Demo Projects	Demo projects	
2DSymbols	Symbol libraries of MagiCAD Electrical, MagiCAD Circuit Designer and MagiCAD System Designer	
3DSymbols	3D symbol blocks (.dwg files) for MagiCAD Electrical	
UserSymbols	Directory for the user symbol files which can be defined by the user.	
Configurations	Configuration files, e.g., for the MagiCAD Export function	
Templates	Project templates	



RUNNING THE APPLICATIONS

Program shortcuts

The MagiCAD Setup procedure creates the application shortcuts into the *MagiCAD* folder on the desktop and under the *Start\Programs\MagiCAD* folder.

The following shortcuts are created by the MagiCAD Setup procedure:

- MagiCAD for AutoCAD Demo Projects
- MagiCAD for AutoCAD Documentation
- 뷀 MagiCAD for AutoCAD Utilities
- Tools
- MagiCAD for AutoCAD

The **Tools** subfolder contains the following shortcut:

🎓 License Management Utility

The **MagiCAD** for **AutoCAD** – **Utilities** subfolder contains the User Settings utility and applications for maintaining MagiCAD projects without running MagiCAD.

- @ Edit Electrical Project
- Edit Room Project
- Edit Schematics Dataset
- Edit Ventilation and Piping Project
- MagiCAD User Settings

Command (target) in the *MagiCAD for AutoCAD* shortcut has the following format:

```
"[PathofAutoCAD]\acad.exe" [AdditionalArguments] /p [Profile] /w [WorkspaceName] /b "[PathofMagiCAD]\[ScriptName]" where
```

[PathofAutoCAD] is the full directory name of AutoCAD executable (acad.exe)

[AdditionalArguments] are the additional command line switches that you may wish to include in the startup (e.g. if you run MagiCAD on Architectural Desktop); see chapter "Installing MagiCAD on multiple workstations / Utilising MSI properties" for further information

[Profile] is the AutoCAD profile that is selected for the MagiCAD session (either a profile name or filename of an .arg file). "" means that MagiCAD uses the active (current) profile.

 $[{\tt WorkspaceName}] \ \ \text{is the AutoCAD workspace that is selected for the MagiCAD session}$

[PathofMagiCAD] is the directory where MagiCAD applications are installed

[ScriptName] is the filename of the startup script; which depends on the AutoCAD version For example, the shortcut for MagiCAD might have its target defined as follows:

```
"C:\Program Files\AutoCAD 2020\acad.exe" /p "MagiCAD" /w "" /b
"D:\MagiCAD\magicad start r23.scr"
```

In this example, Architectural Desktop is run as AutoCAD (i.e. no additional command line switches are applied), *MagiCAD* profile is used, current workspace is used, and the startup script is run from the program directory D: \MagiCAD.

Startup script

MagiCAD startup script is loaded when the application is started using the shortcut. By default, the script loads the applications (loader .arx file). You can customise the startup script according to your preferences.

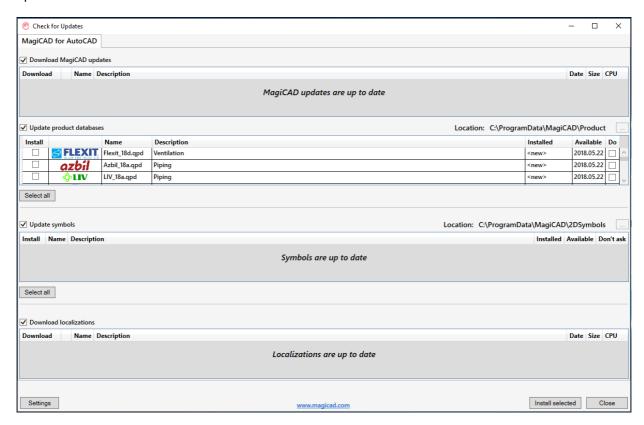
All MagiCAD applications (Piping, Sprinkler, Ventilation, Electrical, System Designer, Circuit Designer, and Room) are loaded when you start the program. Please note, however, that you can run only the applications for which you have a valid license.



CHECK FOR UPDATES

You need an open internet connection to be able to use this function.

When you click the *Check for Updates* button in the MagiCAD ribbon, a utility displaying the available updates starts.





INSTALLING MAGICAD ON MULTIPLE WORKSTATIONS

MSI INSTALLATION PACKAGE - SILENT INSTALLATION

The MagiCAD Setup procedure is performed using Microsoft Installer technology. The installation can be customised with the help of certain properties, which reduces the amount of work when a large number of workstations are configured.

The properties can be manipulated, e.g., by employing scripts or transforms. Note that R20 refers to versions 2015 and 2016, R21 refers to version 2017, R22 refers to version 2018 and R23 refers to version 2019 and 2020.

Property	Purpose	Default value
rioperty	Purpose	Default value
INSTALLDIR	The directory where the program will be installed.	C:\Program Files\MagiCAD
		Note: may vary depending on the language of the operating system
UI_LANGUAGE	User interface language of the program.	1512
	1512=English 1528=Russian 1539=Chinese	
	If you select Chinese as the language, the online product databases will be read from the server in China by default. You can change this setting later if necessary.	
PROFILE_NAME	Name or filename of the profile to be	\\ #
	used in the program shortcut of MagiCAD (/p switch)	(this means that AutoCAD uses the active, i.e. current, profile when MagiCAD is started)
INSTALL_R23	Install program on R23 platform (2019 or 2020)	1
	0=no, 1=yes	
ACAD_WORKSPACE_R23	Workspace to be used in the program shortcut of MagiCAD	
ACAD_R23_CMD_ARGS	Additional command line switches to the shortcut of MagiCAD applications	
ACAD_REG_R23_VER1	Internal version number of the Autodesk product	Note: if this property is not defined, the setup procedure will check the value
	For example, "R23.0" for AutoCAD 2019, "R23.1" for AutoCAD 2020	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run



ACAD_REG_R23_VER2	Internal product/localisation number of the Autodesk product.	Note: if this property is not defined, the setup procedure will check the value
	For example, "ACAD-2001:409" for English AutoCAD 2019,	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
	"ACAD-3001:409" for English AutoCAD 2020	vorsion that was last run
INSTALL_R22	Install program on R22 platform (2018)	1
	0=no, 1=yes	
ACAD_WORKSPACE_R22	Workspace to be used in the program shortcut of MagiCAD	
ACAD_R22_CMD_ARGS	Additional command line switches to the shortcut of MagiCAD applications	
ACAD_REG_R22_VER1	Internal version number of the Autodesk product	Note: if this property is not defined, the setup procedure will check the value
	For example, "R22.0" for AutoCAD 2018	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
ACAD_REG_R22_VER2	Internal product/localisation number of the Autodesk product.	Note: if this property is not defined, the setup procedure will check the value
	For example, "ACAD-1001:409" for English AutoCAD 2018	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
INSTALL_R21	Install program on R21 platform (2017)	1
	0=no, 1=yes	
ACAD_WORKSPACE_R21	Workspace to be used in the program shortcut of MagiCAD	
ACAD_R21_CMD_ARGS	Additional command line switches to the shortcut of MagiCAD applications	
ACAD_REG_R21_VER1	Internal version number of the Autodesk product	Note: if this property is not defined, the setup procedure will check the value
	For example, "R21.0" for AutoCAD 2017	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
ACAD_REG_R21_VER2	Internal product/localisation number of the Autodesk product.	Note: if this property is not defined, the setup procedure will check the value
	For example, "ACAD-G001:409" for English AutoCAD 2017	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
INSTALL_R20	Install program on R20 platform (2015 or 2016)	1
	0=no, 1=yes	
ACAD_WORKSPACE_R20	Workspace to be used in the program shortcut of MagiCAD	



ACAD_R20_CMD_ARGS	Additional command line switches to the shortcut of MagiCAD applications	
ACAD_REG_R20_VER1	Internal version number of the Autodesk product	Note: if this property is not defined, the setup procedure will check the value
	For example, "R20.1" for AutoCAD 2016	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
ACAD_REG_R20_VER2	Internal product/localisation number of the Autodesk product.	Note: if this property is not defined, the setup procedure will check the value
	For example, "ACAD-F001:409" in English AutoCAD 2016	from the HKEY_CURRENT_USER registry according to the AutoCAD version that was last run
DIR_2DSYMBOLS	Path setting for 2D symbols	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
DIR_3DSYMBOLS	Path setting for 3D symbols (blocks), Electrical	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
DIR_USERSYMBOLS	Path setting for the user-defined symbols, Electrical	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
DIR_PRODUCT	Path setting for the manufacturer databases	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
DIR_DEFAULTPROJ	Default path for project templates	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
DIR_PROPERTY_SET_CFG	Default path for the property set configurations of export functions	Note: if this property is not defined, default value will be used (see the path definition in <i>MagiCAD Installation Guide</i>)
EXPORT_CONFIGURATIONS	Default configuration file for MagiCAD Export	Note: if the property is not defined, default value will be used (MagiCAD_Export.ini in the Configurations subdirectory; see the path definition in MagiCAD Installation Guide)
LICENSE_SERVER	Server(s) containing network licenses defined in port@host format. Multiple servers are separated with a semicolon.	
INSTALL_CFU	Install Check for Updates	1
	0=no, 1=yes	
INSTALL_LMU	Install License Management Utility	1
	0=no, 1=yes	



INSTALL_PM	Install Plugin Manager	1	
	0=no, 1=yes		

Sample installation batch files

This sample script installs the 64-bit version of MagiCAD on the platform AutoCAD 2020:

```
msiexec /i "MagiCAD 2020 for AutoCAD.msi" /qb INSTALL_R23=1
ACAD_REG_R23_VER1="R23.1" ACAD_REG_R23_VER2="ACAD-3001:409"
```

This sample script installs the 64-bit version of MagiCAD on the platform AutoCAD 2016. The user interface language is Chinese. The program uses network licenses that are located on *server1* (no port number specified):

```
msiexec /i "MagiCAD 2020 for AutoCAD.msi" /qb INSTALL_R20=1
ACAD_REG_R20_VER1="R20.1" ACAD_REG_R20_VER2="ACAD-F001:409" UI_LANGUAGE=1539
LICENSE SERVER="@server1"
```

Setup packages for additional tools are delivered together with the MagiCAD installer. It is optional, but recommended to install the following applications: MagiCAD Connect, MagiCAD Create

```
msiexec /i "MagiCAD Connect for AutoCAD 2020.msi" /qb
msiexec /i "MagiCAD Create.msi" /qb
```

EXE INSTALLATION PACKAGE

The properties for installing MagiCAD 2020 for AutoCAD.exe using command line are limited to UI language and installation location.

Property	Purpose	Default value
InstallFolder	The directory where the program will be installed.	C:\Program Files\MagiCAD Note: may vary depending on the language of the operating system
Language	User interface language of the	1512
If you select Chinese as the language, the online product databases will be read from the server in China by default. You can change this setting later if necessary.	program. 1512=English 1528=Russian 1539=Chinese	

Sample installation batch files for .exe package

Silent installation to default location with English UI language:

```
"MagiCAD 2020 for AutoCAD.exe" /silent
```



Silent installation, Russian UI language, custom location:

"MagiCAD 2020 for AutoCAD.exe" /silent /Language=1528 /InstallFolder="C:\Program Files\MagiCAD_ru"

Silent installation of patch package

There are no parameters for patch packages, but you can install them silently:

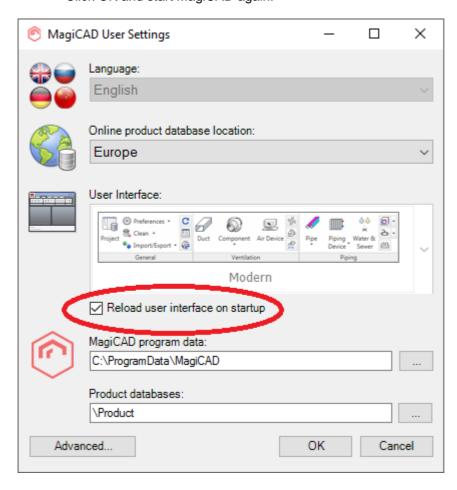
"MagiCAD 2020 for AutoCAD Patch.exe" /silent



FREQUENTLY ASKED QUESTIONS

HOW CAN I GET BACK MISSING MAGICAD RIBBON TABS?

- Close MagiCAD
- Start MagiCAD User Settings (Desktop | MagiCAD | MagiCAD for AutoCAD Utilities | User Settings)
- Check "Reload user interface on startup"
- Click OK and start MagiCAD again.



WAS THE PATCH INSTALLED SUCCESSFULLY? I CANNOT FIND IT IN PROGRAMS AND FEATURES.

After patch installation, the MagiCAD name in Programs and Features remains the same, but the Version Number is updated.

The Release version displayed in the Comments column is also updated, e.g. MagiCAD Release: 2020 If the Comments column in Programs and Features is not visible, right-click the column title bar, select 'More...', select 'Comments' and click 'OK'.

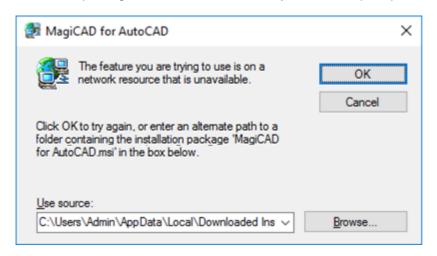
How can I uninstall a patch?

You cannot uninstall only the patch installation. Uninstalling MagiCAD from Programs and Features will uninstall MagiCAD entirely.



THE INSTALLER DOES NOT FIND THE INSTALLATION PACKAGE

If some installed files are missing from the computer, the installer tries to fix the installation. If the installation package is not found automatically, the user is prompted to locate the package by browsing.



Click Browse and locate the MagiCAD .MSI package from the directory: C:\Users\<User name>\AppData\Local\Temp\
Select the .MSI file and click OK.

If you installed the .MSI package instead of the .EXE package, the installation package may not be located in your computer. Try to locate the package from the same location where the installation procedure was originally started. In case you are not able to locate the .MSI package, download the package from the MagiCAD Portal. The package must be exactly the same as the installed one.