

Installation Guide

Cloud Installation

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Chapter 1: Introduction

1.1. Welcome

Welcome to the SCIA Engineer Installation Guide. SCIA Engineer is a structural analysis and design program running under Windows 10. It has a large range of applications: from the check of simple frames to the advanced design of complex projects in steel, concrete, wood, etc.

The program handles the calculation of 2D/3D frames, including the profile check and the connection check for steel constructions. Apart from frames, it is also possible to model and analyze plate structures, including advanced concrete calculations.

This manual describes the procedures for a correct installation of the application with a cloud license.

The final two chapters include the procedure for uninstalling the software (Chapter 3) and a guide for troubleshooting common issues. (Chapter 4).

1.2. System requirements

Hardware

	Minimum	Advised
Processor	Intel Core-i5 or AMD Ryzen 5 or similar	Intel Core-i7 or AMD Ryzen 7 or similar
Memory (RAM)	8 GB	32 GB, or more
Graphics Controller	256 MB, supporting OpenGL	4 GB, or more
Free disk space	5 GB, SSD	/
Resolution	Full High Definition *	/

* 4K is supported for the new interface of SCIA Engineer 21

A 3D mouse is not supported.

Processor

For the processor two parameters are important: the number of cores and the clock frequency. When you perform a linear calculation, the number of cores is the main parameter that determines the speed of the calculation. In a nonlinear and eigenmode calculation, the clock frequency is the determining factor. Next to the previously mentioned calculation types, the design checks run multicore as well. We advise an Intel Core i7 or AMD Ryzen 7 with at least 2.4 GHz.

Memory (RAM)

SCIA Engineer, the solver and the Engineering Report are 3 separate processes that each require memory to perform their actions. Next to these processes, also Windows (min. 1.5 GB) and all other applications take some memory in use as well. To not run out of memory when performing memory demanding calculations, we advise to have at least 16 GB or more RAM in the computer.

Graphics controller

A minimum memory of 256MB and the support of OpenGL is required to run SCIA Engineer. This means that SCIA can also be run with an onboard graphics card. For some models that are graphically more demanding, onboard graphic card may fail to render the structure. For this reason, we advise a dedicated GPU (Graphical Processing Unit). A low to mid end GPU should be adequate.

Hard Disk Drive (HDD)

Every hard disk with a free disk space of 5 GB can be used to run SCIA Engineer. This does not mean that the HDD is not important. The read/write speed of the HDD has an influence on the performance of SCIA Engineer. In order to increase performance, we recommend an SSD (Solid State Drive).

Some available SSD types are:

- (m)SATA: cheap, worst performance
- M.2: best price/quality ration
- PCIe: expensive, best performance

Software

Supported Windows OS	Windows Server 2008 R2 (64 bit), but only licensing is tested Windows Server 2012 R2 (64 bit) Windows Server 2016 (64 bit) Windows Server 2019 (64 bit) Windows 10 (64 bit)
API link with Revit (http://www.scia.net/revit)	SCIA Engineer 21 is compatible with: Revit 2020, Revit 2021
API link with Tekla	SCIA Engineer 21 is compatible with: Tekla Structures 2019 Tekla Structures 2019i Tekla Structures 2020
Etabs	SCIA Engineer 21 is compatible with: Etabs 9.2
IFC	SCIA Engineer 21 is compatible with: IFC version 2x3 IFC4 (only import)
SDNF	SCIA Engineer 21 is compatible with: SDNF version 2.0 SDNF version 3.0

1.3. Technical description

Internet access

Since the new cloud protection resides in the cloud, SCIA Engineer will access multiple services at:

- <https://activation.scia.net/>*
- <https://flex1516.flexnetoperations.com/>*

(more precise: <https://flex1516.flexnetoperations.com/servicesand> and <https://flex1516.flexnetoperations.com/deviceservices>)

- <https://flex1516.compliance.flexnetoperations.com/>*

(more precise: <https://flex1516.compliance.flexnetoperations.com/instances/<someID>/request>)

The admin-user (see chapter 2.1 Account activation) can add/remove access to his license for other users in the SCIA License Portal at:

- <https://protection.scia.net/>*

For testing or monitoring the connection to the licensing service, the following links can be used.

Each link should return a successful response:

- <https://flex1516.compliance.flexnetoperations.com/deviceservices/ping>
- <https://flex1516.compliance.flexnetoperations.com/api/1.0/instances/ping>

Protection Types

When using the new cloud protection, there are 2 different protection types available: the floating protection type and the node-locked protection type.

Floating protection type

When using the floating protection type (default), then all commercial modules & editions, that are available in your license, are available from a Cloud License Server.

When SCIA Engineer is started, then it will retrieve the list of available modules from the Cloud License Server, and the user has the possibility to select (all or) some of these available modules. The non-selected modules remain on the Cloud License Server and can be used by another user.

When SCIA Engineer is exited, then it will return the selected modules back to the Cloud License Server.

Practically this means that:

- Internet access is always needed whilst SCIA Engineer is started and exited.

The amount of data transfer is during this operation is minimal – even a connection to the hotspot on a cell phone would be enough.

The retrieval of the list of available modules may take on average about 15 seconds but is highly dependent on the number of modules in your license and the pay-load at the flexnetoperations site.

- The licenses are dynamically retrieved and returned to the Cloud License Server, so this means that they can be easily shared between multiple users

Node-locked protection type

When using the node-locked protection type, then all commercial modules & editions, that are available in your license, are moved from the cloud protection environment to your user-profile on your computer when starting SCIA Engineer. From this moment on, these commercial modules & editions remain permanently on your computer, but they can only be used for the next 5 days.

Practically this means that:

- You only need internet access once each 5 days whilst SCIA Engineer is started.
- Each time you start SCIA Engineer while having internet access, then a new 5 days period starts.
- During the 5 days period, you can use SCIA Engineer also without having internet access.
- When you want to use your license on another computer, then you first need to manually return your license back to the cloud from the first computer, and afterwards you can use that license on the second computer.

User identification, roles and activation

To be able to use the cloud-protection services in SCIA Engineer, each user will have to identify himself by using his personal credentials, being his email address and a secure password.

Both are inputted in the Protection Settings dialog of SCIA Engineer in order to allow SCIA Engineer to use the Cloud License Server.

The administration of the users is done in the SCIA License Portal at <https://protection.scia.net>.

You can login to the SCIA License Portal by using your personal credentials.

There are 2 user roles available: the role 'user' and the role 'admin-user'.

- Role 'admin-user'
When a new license is created at SCIA, then SCIA will assign a responsible to this license.
When, after a purchase, a license is delivered, then the responsible will receive an email with all information.
Upon delivery of the license, SCIA will also assign the 'admin-user' role to this responsible.
From now on, this 'admin-user' will be able to perform the following administrative tasks on this license.
The 'admin-user' has the rights to:
 - Use the modules of his Cloud License Server
 - Add/Remove/Block new users for his license with the role 'admin-user'
 - Add/Remove/Block new users for his license with the role 'user'
 - Rename the license name
 - Reset his password
- Role 'user'
A normal 'user' has the rights to:
 - Use the modules of his Cloud License Server
 - Reset his password

When a new user is added to the SCIA License Portal (either by SCIA, or by the 'admin-user'), then he will receive an email with a temporary link. Click this link to activate your account and to set your password. Please choose a secure password.

FAQs

Flexera Community

Knowledge Database for FlexNet Operations can be consulted on:

https://community.flexera.com/t5/Revenera-Community/ct-p/Revenera_Community

Flexera/Revena status page

Check the current availability information of the Cloud License products on:

<https://status.revenera.com/>

One can also subscribe to this page and get warnings/information via email.

Important are the "FlexNet Operations ALM/LLM Licensing" and "FlexNet Operations ALM Production AWS Europe" informations.

Network Blocks /IP whitelist for FlexNet Operations Cloud

When configuring network security (firewall/proxy) rules customers may want to whitelist the IP addresses needed to connect to FlexNet Operations Cloud.

We recommend whitelisting network blocks instead of individual IP addresses, as our IP addresses can potentially change.

The network blocks to whitelist are as follows:

- IPv4: 64.14.29.0/24 and 64.27.162.0/24
- IPv6: 2620:122:f001:1163::/64 and 2620:122:f001:1163::1/128

These network blocks are not in use today, but could be used in the future:

- IPv4: 162.244.220.0/24

TCP,TLS1.0 and TLS 1.2 protocols are used on port 443 (HTTPS) of the FlexNet Operations Cloud.

IP whitelist for SCIA

When configuring network security (firewall / proxy) rules customers may want to whitelist the IP addresses needed to connect to the SCIA protection services.

We recommend whitelisting:

- activation.scia.net

TCP and TLS 1.0 protocols are used on port 443 (HTTPS) of the SCIA protection services.

Chapter 2: Installation of SCIA Engineer

This chapter describes the procedure to install a cloud version of SCIA Engineer.

2.1. Account activation

An automatic mail is sent to your inbox for the activation of your SCIA Engineer license. In this mail a link is sent to finish your registration. By clicking on this link, you open the following page:

On this page your password is set. The **User name** is your email.

! This mail is only sent to you when registering as a new user.

! This mail could be in the spam folder, so make sure to check this folder as well.




After setting the password click on [Activate].


This email and password need to be used during the installation of SCIA Engineer to gain access to the software. If SCIA Engineer is already installed these credentials need to be filled in into the protection setup. SCIA Engineer will automatically obtain the license from the cloud license server when opening the software and give it back when shutting it down.

! This means that to make use of the SCIA cloud license there should be connection to the internet when opening and closing the software.

For multiple users:

The admin of the license can login to the SCIA Cloud License Portal (<https://protection.scia.net>) to manage the SCIA License(s). Here users can be added (and removed) that are allowed to use your available SCIA Licenses.

	<p>Manage license: to add a user click the manage license icon next to your SCIA License and fill in the email of the user that should be added in the window below:</p> <div data-bbox="603 421 1094 667" style="border: 1px solid #ccc; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Add user for this license</p> <input style="width: 100%;" type="text"/> <input type="checkbox"/> Administrator <p style="text-align: center;">Add user</p> </div> <p>When 'Administrator' is checked this user will have administration rights as well. This means he can add, block and remove users.</p> <p>If this user is already registered, he can now use the SCIA License. If the user is not registered an automatic email will be sent to set a password. After the password is set the new user can start using the licenses.</p>
	<p>Block user: a blocked user can no longer use the license but can be added again to the list without the need of registering again.</p>
	<p>Remove user: a removed user can no longer use the license. If this user is added again to the list, he needs to register another time to start using the software again.</p>

 The **Remove user** option is important to use if a user leaves the company to make sure he cannot use the license anymore.

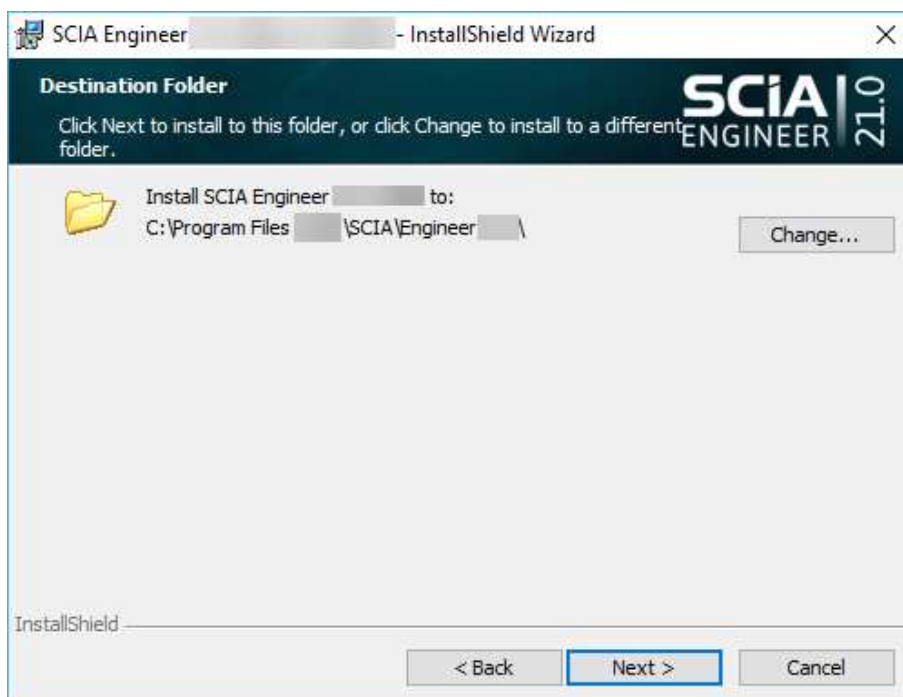
2.2. Installation of SCIA Engineer

1. You can start the installation using the web setup:



<https://www.scia.net/nl/support/downloads/scia-engineer-21>

2. In the dialog box which appears, select the language for installation. The language chosen for installation is also the default language that will be used for the help files of SCIA Engineer.
3. The Welcome screen for installation appears. Press [Next] to continue.
4. Fill in the customer information and press [Next] to continue.
5. In the dialog Choose Destination Location, the folder where the files will be installed can be specified. By default, the destination folder is created in Program Files. It is advised to use this default location.



Press [Next] to continue.

6. Select the type of installation. A typical installation installs the standard version of SCIA Engineer. With the 'custom' installation the user can set the parts of the software (add-ons and languages) to be installed. Press [Next] to continue.
7. Select the languages to be installed. Press [Next] to continue.

8. Set the username (mail address) and password to be used and press [Next] to continue.

SCIA Engineer 21.0 - InstallShield Wizard

SCIA License profile
Please enter your user name and password

SCIA ENGINEER 21.0

If you already have an account on the SCIA License Portal, then you can input here your user name and password to get access to your cloud license. If you leave this blank now, then you can also input your credentials afterwards in the Protection Setup. Cloud license is required for SCIA Engineer 21.0

User name:

Password:

[Forgot password](#)

InstallShield

< Back Next > Cancel

9. Now you can choose if you like to install SCIA Engineer and/or SCIA Concrete Section. Press [Next] to continue.
10. Press [Install] to start the installation.
11. After installation, the message appears that SCIA Engineer has been installed successfully. Press [Finish] to end the installation procedure.

2.3. Starting SCIA Engineer

You should be logged in when starting SCIA Engineer. When you did not set your credentials (username and password) during the installation, you should open the protection setup:

Press [Login], fill in your credentials and press [Validate].

Press [Apply / Refresh]



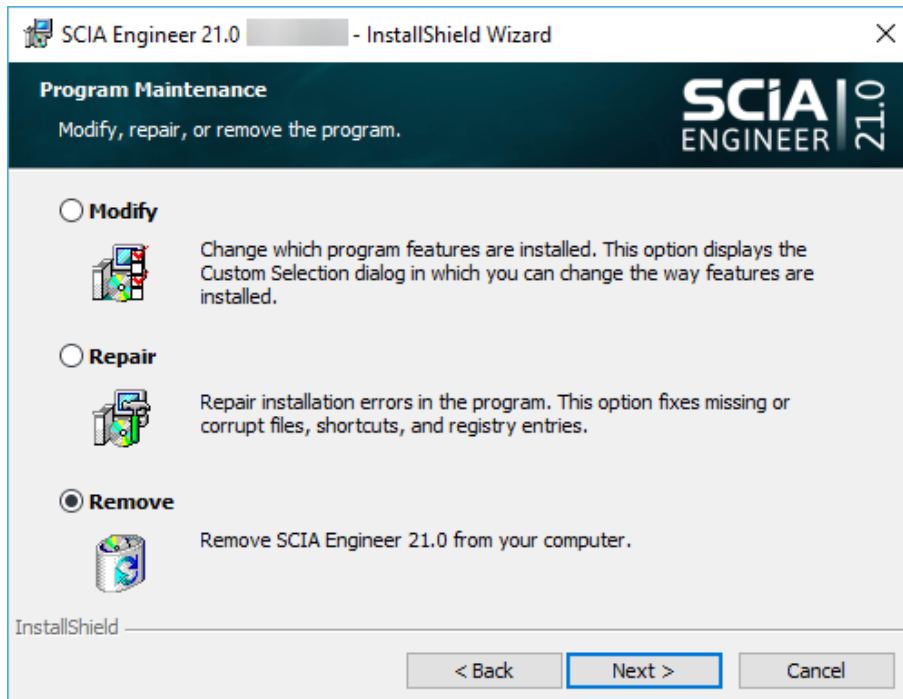
These steps are only necessary if your credentials were not filled in during the installation or if you want to switch accounts.

Chapter 3: Uninstalling SCIA Engineer

3.1. Uninstalling with Add/Remove Programs in Windows

SCIA Engineer can be uninstalled like any other Windows based software application:

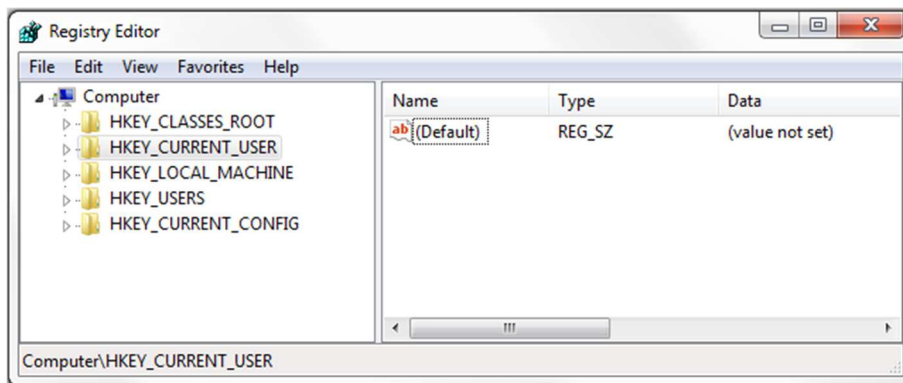
1. Go to Add or Remove Programs through Start > Settings > Control Panel > Add or Remove Programs.
2. A list with installed software applications will appear. Select SCIA Engineer and press [Change/Remove]
3. In the dialog box that appears choose the option **Remove**



4. Press [Next] to start the uninstall procedure.

After completing the uninstallation, some settings remain in the registry of Windows. These traces can be deleted manually. Deleting these entries can be necessary when problems occur with a new installation.

1. Open the Run dialog box through Start > Run
2. Type regedit and press [OK]
Take note, for this step it is required to have Administrator rights!
3. The Registry Editor appears.



4. Go to the following key's and delete them using the Delete button.

- HKEY_CURRENT_USER\Software\SCIA\ESA*
 - HKEY_LOCAL_MACHINE\Software\SCIA\ESA*
- Where * represents the version number.

5. Close the Registry Editor through File > Exit

After completing the uninstallation, some folders remain on your hard disk and can be deleted manually:

- 32 bits version: C:\Program Files\SCIA\ Engineer**
- 64 bits version: C:\Program Files (x86)\SCIA\Engineer**

Also the following folders remain on your hard disk and can be deleted:

- Windows 7/8/10:
 - C:\Users\#User#\Esa**
 - C:\Users\#User#\Documents\Esa**
- Where ** represents the version number



These folders can be deleted using Windows Explorer. Please note that the first folder can contain projects so you must be absolutely sure if you wish to delete these folders.

3.2. Uninstalling without Add/Remove Programs in Windows

Sometimes SCIA Engineer cannot be uninstalled using the 'Add/Remove programs' feature of Windows. Sometimes an error message presents itself or SCIA Engineer is not added to Add/Remove Programs. In this case, it is not possible to uninstall the software.

This problem can occur with any Windows based program.

To easily uninstall Scia Engineer, use the following procedure:

- Go to Start > Run and in the dialog that appears, type the following command:
`msiexec /x {XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX}`
 Where XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX is the product code of the program (so it's depending on the installed version of the software).

To find the product code (as parameter ProductCode) in the registry, use following procedure:

1. Open the Run dialog box through Start > Run
2. Type regedit and press [OK]
 Take note, for this step it is required to have Administrator rights!
3. The Registry Editor appears. Go to the following key's:
 - SCIA 32 bit version: HKEY_LOCAL_MACHINE\SOFTWARE\SCIA\Installer\SciaEngineer**.*
 - SCIA 64 bit version:
 HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\SCIA\Installer\SciaEngineer**.*_x64
 Where *.* represents the version number (for example 21.0 for Scia Engineer 21.0).

This will execute the same procedures as uninstalling through Add/Remove Programs.

Chapter 4: Troubleshoot

4.1. List of modules is not available

If there are no modules shown in the 'Available commercial modules' field of the protection setup, this can have several causes.

Lockman.exe is not able to connect to:

- <https://flex1516.flexnetoperations.com>
- <https://flex1516.compliance.flexnetoperations.com>

Check the settings on Proxy, Firewall, or Antivirus on the user's computer and user's network.

Use Flexera's ping pages to check if Lockman.exe can connect to the licensing services. Each service should return a successful response:

- <https://flex1516.compliance.flexnetoperations.com/deviceservices/ping>
- <https://flex1516.compliance.flexnetoperations.com/api/1.0/instances/ping>

You can try to switch off the Firewall and Antivirus, and bypass the Proxy.

You can try to take the computer outside the company network (home) and try from there.

It is recommended to not start the VPN when doing this test.

License is taken by another user@device:

- In case of Activation ID (node-locked protection type), the license can be activated by another user (often this is done by the ict-admin who did the installation of the software and thereby tested the protection). Then the ict-admin (who did the installation of the software) has to return the license, by using following steps: log in again under his name, start the Protection Setup, deselect the license and click on the [Apply / Refresh]-button.
- In case of Cloud License Server (floating protection type), the licenses can be in use by other users of this Cloud License Server. This can be checked on <https://protection.scia.net/>

You can also check the website of Flexera (status.flexera.com) to see if the protection system is operational. Sometimes maintenance is carried out and then the status can be 'Under Maintenance':

FlexNet Operations ALM Production

Under Maintenance

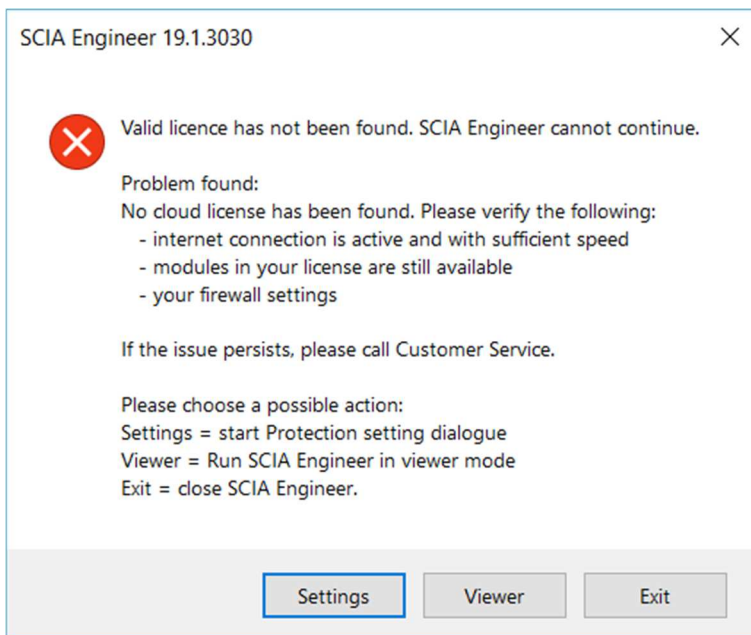
4.2. Crash of the computer

After a crash of the computer, it is possible that the license is still in use. Now there is no possibility to return the license by yourself.

- In case of Activation ID, the modules are returned after 5 days.
- In case of Cloud License Server, the modules are returned after 1 day.

4.3. No cloud license has been found

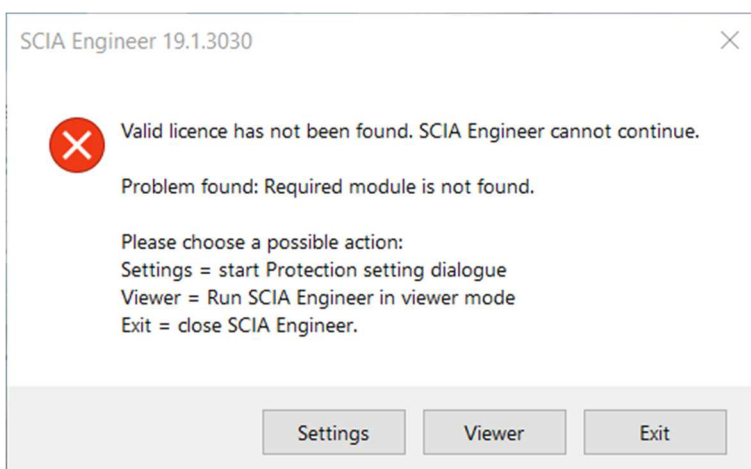
While opening SCIA Engineer, following message could appear:



In that case, click on [Settings] to open the protection setup window. Follow the steps of chapter 2.3 Starting SCIA Engineer.

4.4. Required module is not found

While opening SCIA Engineer, following message could appear:



In that case, click on [Settings] to open the protection setup window. Follow the steps of chapter 4.1 List of modules not available.

Contacts

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