

SCAD Office.

**System Requirements
and Installation**

Electronic version

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System Requirements

Minimum and recommended requirements to the software and hardware for the functioning of programs included in the SCAD Office package are given below.

	Minimum	Recommended
CPU	Intel Pentium 4	Intel Core i5-*, Intel Core i7-*
RAM	1 Gb	8 Gb
HDD	Any	SDD
Free space on the disk for the program installation	1000 Mb	
Free space on the disk for the work files	There should be free space enough for the storage of files with the initial data and the results of calculations on the disk	
Mouse	+	+
Display adapter	Any	ATI/NVIDIA with the support of DirectX 9.0
Monitor	resolution 1280×1024 with 16-bit color support	resolution 1680×1050 with 24-bit (or higher) color support
Operating system	Windows 10 version 1809 or above	Windows 10 version 1809 or above

SCAD Office functions on computers with the following operating systems: Windows 10, Windows 11.

The authors do not guarantee the correct operation of programs when using Insider Preview Build versions.

To install the product you need a DVD-drive or connection to the Internet to download the installation package.

Recommendations on Optimization of an Operational Environment

Turn on (or off) the Indexing Service

It depends on your needs whether to turn the Windows Indexing Service on or off. If you rarely use the search through disk, it is better not to turn it on, since it insignificantly slows the NTFS performance down and requires the space on disk for the catalogue storage. However, if you often use the search function (and also search through the files contents), you should turn Indexing on – it will make the search process significantly quicker.

Defragment Regularly

Disk data fragmentation leads to the increase of time needed for the applications to open, close, create and delete files. It is recommended to run the Disk Defragmenter on Windows at least once a week, especially if you use applications which often modify the files and you have lots of these files. If you want, you can use the Windows task scheduler to automate the process.

Start Word and Excel once before Starting SCAD Office

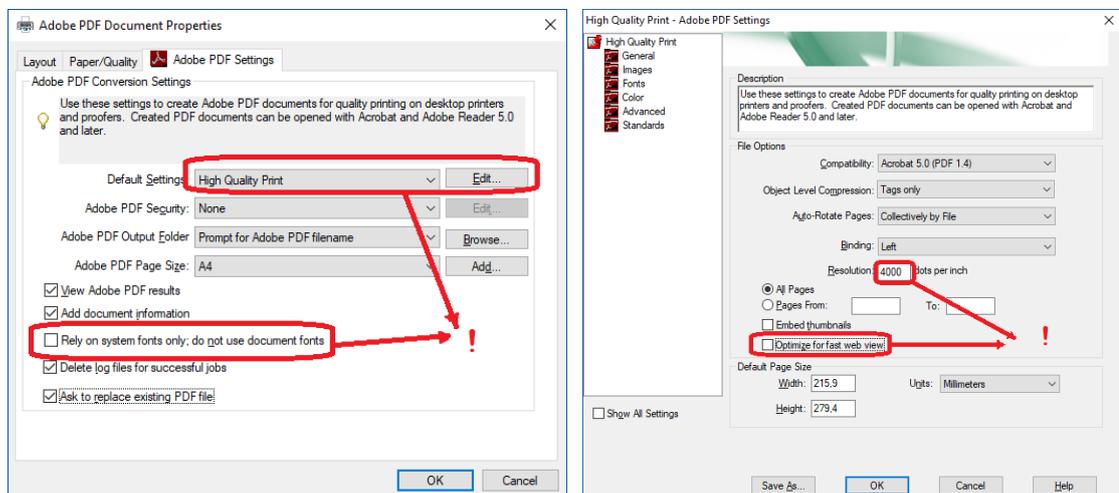
If you have MS Office installed on your computer and you have not used Word or Excel applications yet, before starting SCAD Office you must start Word and Excel once.

Memory Fragmentation by the Service Programs

Work of some of the service programs, for example KIS 6.0 (Kaspersky Internet Security) or Lingvo, can lead to the fragmentation of the RAM, which negatively affects the performance of the SCAD program.

Settings of the PDF-printing

If you use printing to PDF-file, using Adobe PDF printer (or similar software of the following types doPDF, goPDF,...), make sure that the print quality is set to the maximum in the settings of the corresponding printer (an example is shown in the pictures below).



SCAD Office Installation

The package of SCAD Office programs is installed from the DVD-disk with the help of a simple installation program, which works as a “wizard”, offering the user to choose the installation parameters.

At the end of the installation a new SCAD Office program group is automatically created in a Program menu and in a desktop. Installation of the program under different versions of Windows®, listed in the system requirements, is performed in the same way. Before installing the program make sure that you have the Administrator rights and can change the Windows system registry (or the installation program is run as Administrator).

Program Installation

- Insert the installation SCAD Office DVD-disk into the computer.
- Select the Open folder to view the files or open the disk in *My computer* selecting the corresponding device.
- Start "autorun.exe" if the autorun option is turned off on the corresponding device (in the other case the "autorun.exe" program will be started automatically by the operating system).
- Program installation wizard will help to install the program.

SCAD Office programs are protected from unauthorized use by the HASP devices. Modern versions of the Windows operating systems can recognize HASP devices automatically. The capability of installing the HASP driver, which is available as a part of the installation program, is usually not required (you should however read the section below on the network licenses).

English Versions of Windows

If you use the Windows (English) operating system, then in order for the SCAD Office programs (which are oriented on the work in the Russian versions of the operating systems) to work correctly you must change the system configuration before the beginning of the program installation. Activate in the *Control Panel* the *Region and Language* icon. Choose Russia as a country, set this parameter as “Set as system default locale” and press the *Apply* button. Moreover, on the Administrative tab press *Change system locale...* button and choose Russian as a *Current language for non-Unicode programs*.

Privileges

For the autonomous installation of the HASP driver or any SCAD Soft programs (in the process of the products installation the driver of the HASP device will be installed as well) you must have the privileges of the Administrator.

Network Licensing

If you are using a network security device, then you have to install the HASP USB key and the HASP driver on the server, and SCAD Office has to be installed on the respective workstations.

Moreover, if you use any programs of the FireWall type, port 1947 must be open for input/output (for TCP and UDP protocols).

In some cases (for example when a computer with a protection device and a workstation are located in different segments of the network) it is required to install and configure the remote access Sentinel Admin Control Center on the respective *workstation* (Sentinel Admin Control Center is installed together with the HASP driver). The settings are specified on the page http://localhost:1947/_int_/config_to.html (information on how to configure the remote access can be found at http://localhost:1947/_int_/ACC_help_config_remote_lms.html). By default, the above pages display information in English. You can install other languages using the page http://localhost:1947/_int_/getlang.html, and switch between them at any moment, on any page (there are flags of the respective countries on the left, under the controls).

Administrative Installation

SCAD Office installer is a self-extracting executable file, SCADOffice.exe. To prepare for the administrative installation an installation package should first be created with the command

```
SCADOffice.exe /extract_all:<path>
```

where <path> is the directory where the package will be created. This directory will contain a subdirectory Disk1 with the SCADOffice.exe file and all the necessary additional files.

SCAD Office installation program was created by the InstallShield program, which supports the standard for Windows ISS-files necessary for the administrative installation, which is used by the system administrators.

It is possible to create the ISS-file by starting “SCADOffice.exe /r /fl<path to iss-file>”. The program will save all the user’s answers to the setup.iss file.

Start of the “silent installation” is made with the help of the “SCADOffice.exe -s” command. For details see:

http://helpnet.flexerasoftware.com/installshield19helplib/helplib/IHelpSetup_EXECmdLine.htm

Don’t forget that the installation language (Russian/English) is set at starting of setup.exe in the command line.

Administrative Deinstallation

Administrative deinstallation can be performed as follows:

1. Create an installation package with the command
SCADOffice.exe /extract_all:<path>
2. Install SCAD Office
3. Create an ISS file for the deinstallation by running a command of the following type from subdirectory Disk1 (see previous chapter of this manual)

```
<path>SCADOffice.exe /x /r /fl”<path>Uninst.iss”
```

A dialog box will appear where you have to press all the buttons for the deinstallation. Save the file as Uninst.iss

4. Launch **PowerShell** and run the program of the following type (having previously adapted this program for your network infrastructure)

```
[string]$UserOS = ""  
If ((Get-WmiObject Win32_OperatingSystem).OSArchitecture -eq "32-bit")  
{  
    $UserOS = "HKLM:\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall"
```

```

}
Else
{
    $UserOS = "HKLM:\SOFTWARE\WOW6432Node\Microsoft\Windows\CurrentVersion\Uninstall"
}
If (Get-ChildItem $UserOS -Recurse |Get-ItemProperty | Where-Object {$_.DisplayName -like "SCAD Office"})
{
    $obj=Get-ChildItem $UserOS -Recurse |Get-ItemProperty|Where-Object {$_.DisplayName -like "SCAD Office"}
    If ($obj)
    {
        $obj=Get-ChildItem $UserOS -Recurse |Get-ItemProperty|Where-Object {$_.DisplayName -like "SCAD Office"}
        if ($obj.UninstallString -match "setup.exe")
        {
            if ($obj.UninstallString -match "--removeonly")
            {
                [string]$Ustring = $obj.UninstallString
                $Ustring = $Ustring.Trim()
                $endGUID = $Ustring.IndexOf("}")
                $Ustring = $Ustring.Substring(1,$endGuid)
                $Ustring = $Ustring + "\setup.exe"
                $params = "-runfromtemp -s -fl"e:\Uninst.iss"" # change path to ISS-file
                & $Ustring ($params -split ' ')
            }
        }
        Else
        {
            # "EXE not found"
        }
    }
    Else
    {
        # "SCAD Office not found"
    }
}
}

```

File Association

The following associations are performed during the installation: the *spr* file extension is associated with the **SCAD** program, the *crs* extension – with the **Cross** program etc. If a simultaneous installation of the 32-bit and 64-bit versions of SCAD Office is performed on a 64-bit operating system, the installation program will perform an association with the 64-bit program versions.

Interoperability with Tekla

If at installing SCAD Office you have enabled the plugin of Tekla for the interoperability with SCAD++, the following files will appear in the directory where SCAD Office has been installed:

tekla2scadmap.csv

Tekla18ToSCAD.dll (for Tekla version 18)

Tekla19ToSCAD.dll (for Tekla version 19)

Tekla20ToSCAD.dll (for Tekla version 20)

Tekla21ToSCAD.dll (for Tekla version 21)

Tekla2016ToSCAD.dll (for Tekla version 2016)

Tekla2017ToSCAD.dll (for Tekla version 2017)

Tekla2018ToSCAD.dll (for Tekla version 2018)

Tekla2019ToSCAD.dll (for Tekla version 2019)

Tekla2020ToSCAD.dll (for Tekla version 2020)

Tekla2021ToSCAD.dll (for Tekla version 2021)

Tekla2022ToSCAD.dll (for Tekla version 2022)

Tekla2023ToSCAD.dll (for Tekla version 2023)

Tekla2024ToSCAD.dll (for Tekla version 2024)

Tekla2025ToSCAD.dll (for Tekla version 2025)

To finish the installation process copy these files into the directory

\<Tekla Structures installation folder>\<version>\nt\bin\plugins — for all version before 2022;

\<Tekla Structures installation folder>\<version>\bin\plugins\Tekla — for version 2022 and higher.

Interoperability with ARCHICAD

If at installing SCAD Office you have enabled the Add On of ARCHICAD for the interoperability with SCAD++, the following files will appear in the directory where SCAD Office has been installed:

ArchiCAD16x32ToSCAD.apx (for ARCHICAD 16 32-bit version)

ArchiCAD16x64ToSCAD.apx (for ARCHICAD 16 64-bit version)

ArchiCAD17x64ToSCAD.apx (for ARCHICAD 17)

ArchiCAD18x64ToSCAD.apx (for ARCHICAD 18)

ArchiCAD19ToSCAD.apx (for ARCHICAD 19)

ArchiCAD20ToSCAD.apx (for ARCHICAD 20)

ArchiCAD21ToSCAD.apx (for ARCHICAD 21)

ArchiCAD22ToSCAD.apx (for ARCHICAD 22)

ArchiCAD23ToSCAD.apx (for ARCHICAD 23)

To complete setup process user must use Add On Manager of ARCHICAD.

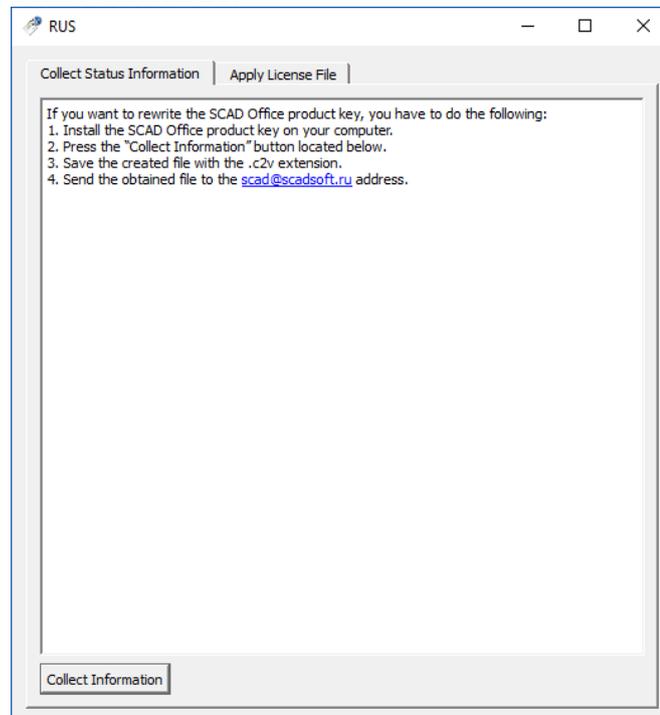
Remote License Update

If you have bought the SCAD Office update, you need to rewrite the product key. This can be done as follows:

Install the SCAD Office product key on your computer (make sure that only one key is installed on your computer). A HASP driver must be installed on this computer. SCAD Office DVD disk contains the HASP driver installation program (*\HASP\Driver\HASPUserSetup.exe*) and it can also be downloaded from the HASP website (<https://www.safenet-inc.com/sentineldownloads/>). After the installation the key can start "flashing" to indicate the "tuning" of the operating system. Do not under any circumstances remove the key during this period (this may cause malfunction of the key). The process of "tuning" may take 1-5 minutes.

Create a c2v file with the information about the key and send this file to scad@scadsoft.ru or scad@scadsoft.com. There are two ways to create a c2v-file:

1. Start the RUS_SCAD_Office_HL_1033.exe program, which you will find in the same folder with the SCAD Office version 21.

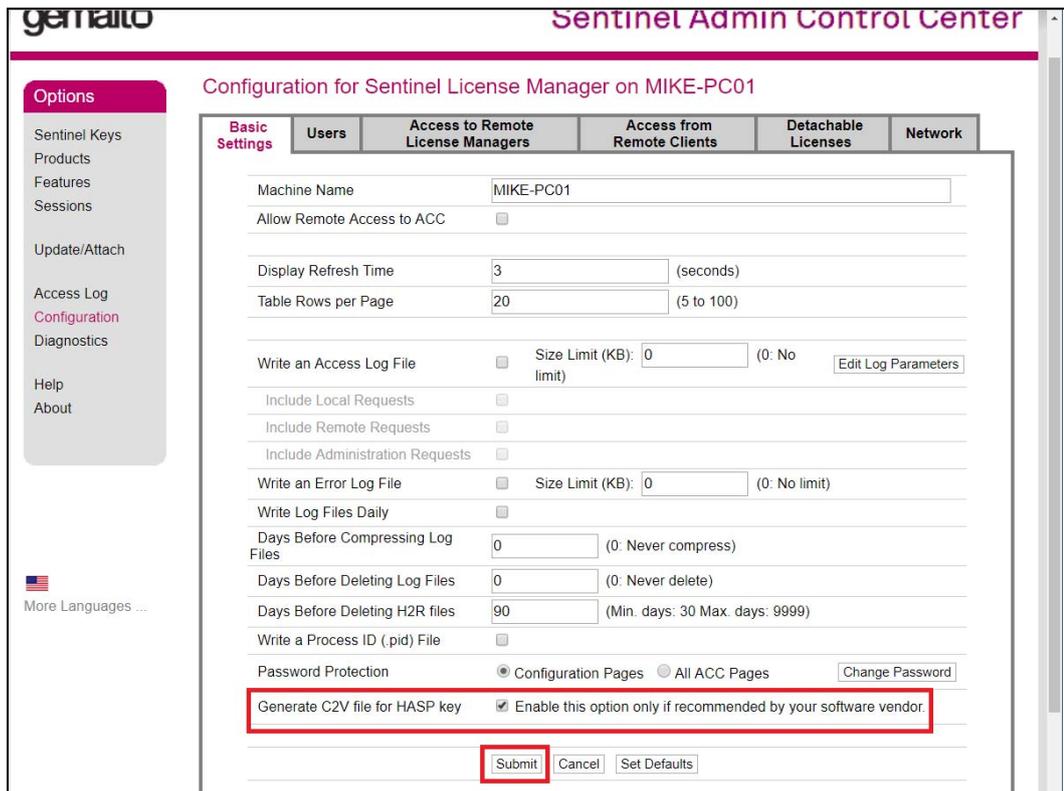


Press the "Collect Information" button in the "Collect Status Information" tab.
Save the created file with the .c2v.

2. Open a browser (for example, Internet Explorer, Chrome, Opera ...) on your computer and follow the link below

http://localhost:1947/_int_/config.html

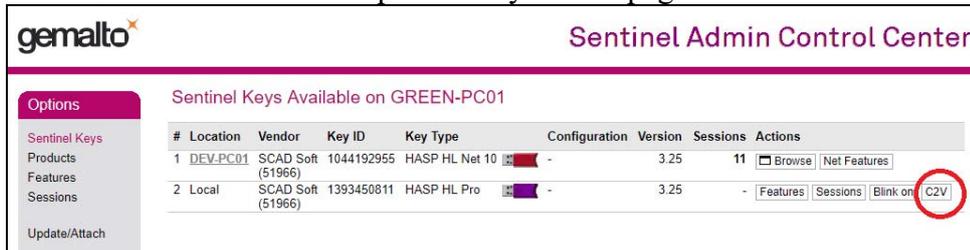
Check the **Generate C2V file for HASP key** checkbox on this page and click the **Submit** button.



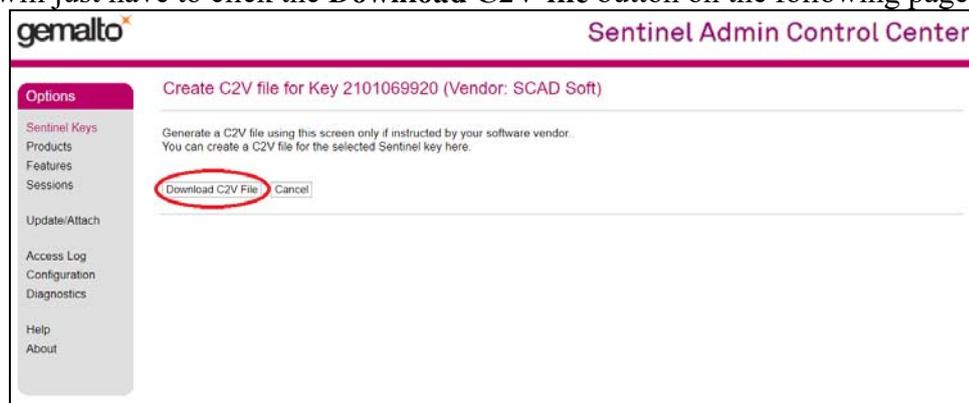
Follow the link

http://localhost:1947/_int_/devices.html

Click the **C2V** button for the respective key on this page.



Then you will just have to click the **Download C2V file** button on the following page and

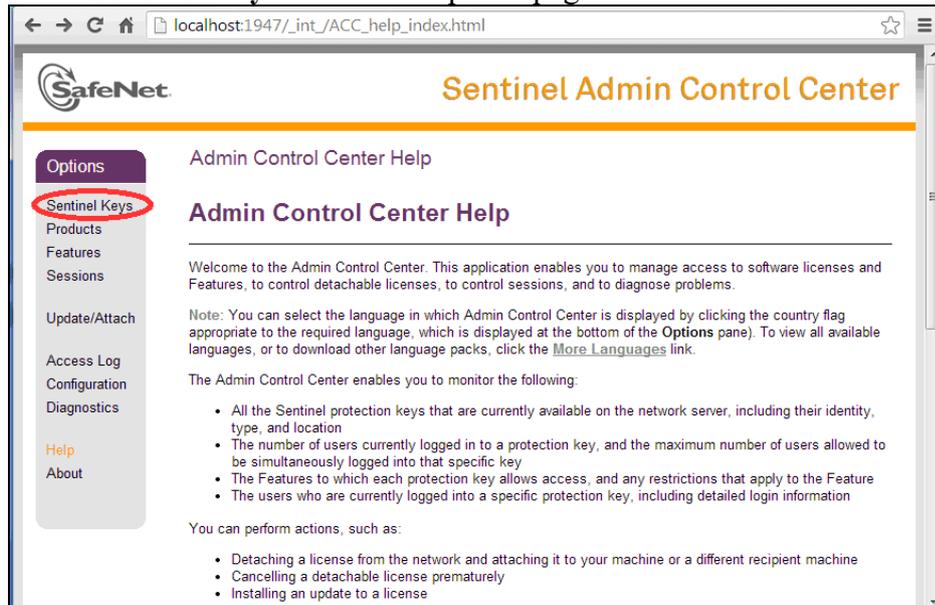


select a path to save the file.

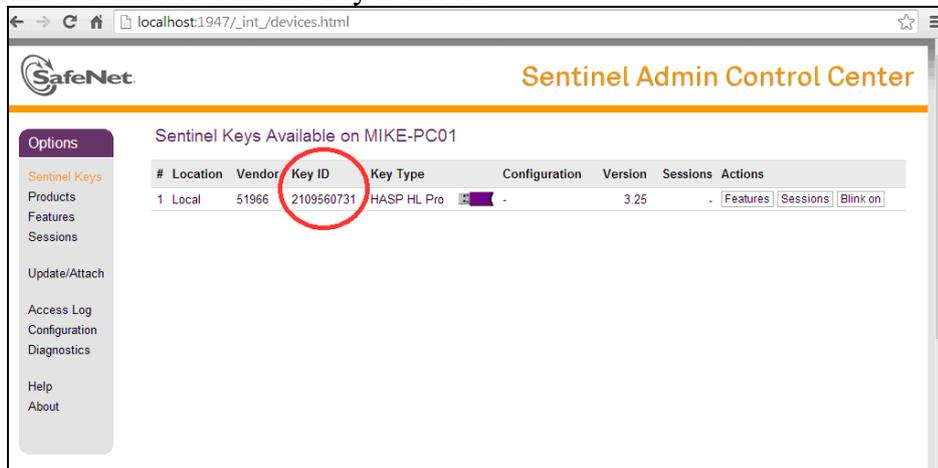
In some cases you might need the number of your HASP device. To find this number you have to open a browser (for example, Internet Explorer, Chrome, Opera ...) and follow the link below

<http://localhost:1947/>

Follow the **Sentinel Keys** link on the opened page.



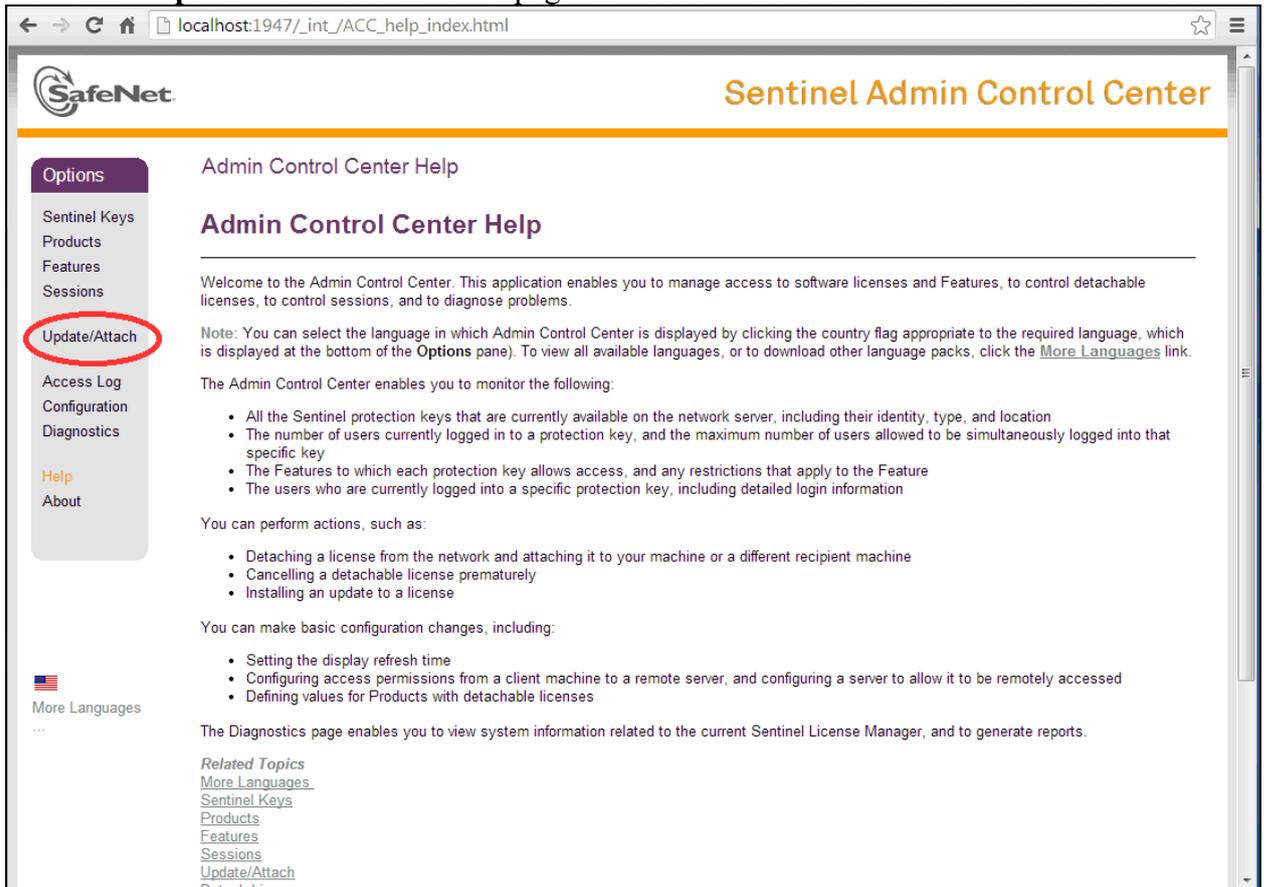
Key ID column contains the key number.



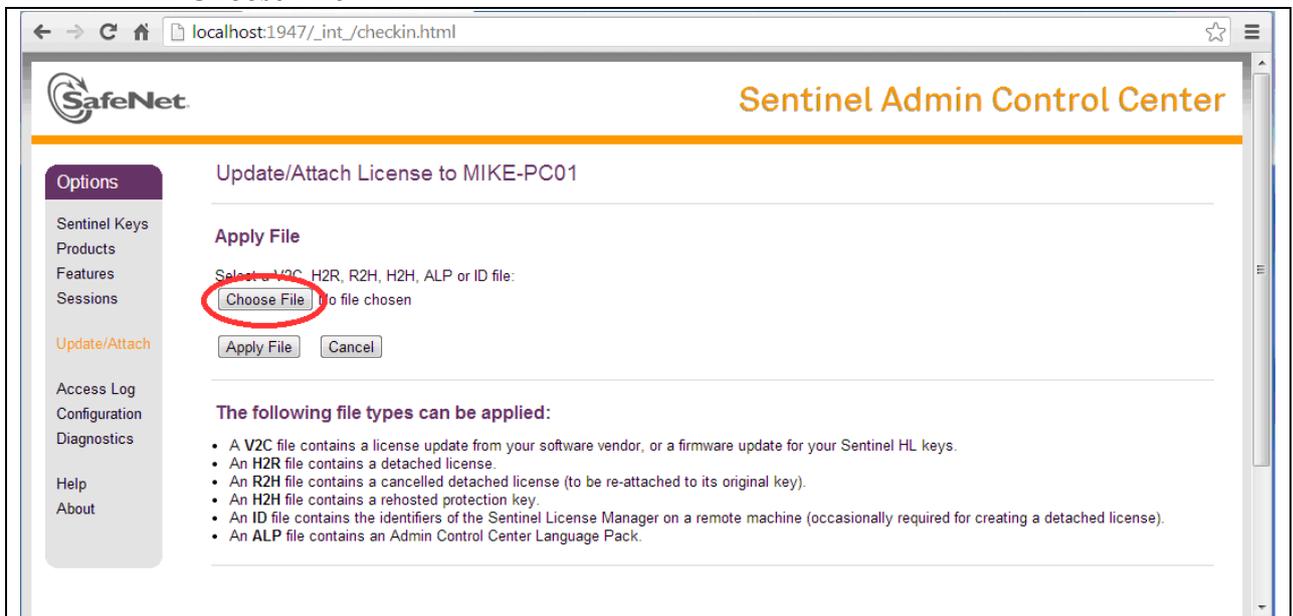
SCAD Soft company employees will send you a v2c file. Open a browser (for example, Internet Explorer, Chrome, Opera ...) on your computer and follow the link below

<http://localhost:1947/>

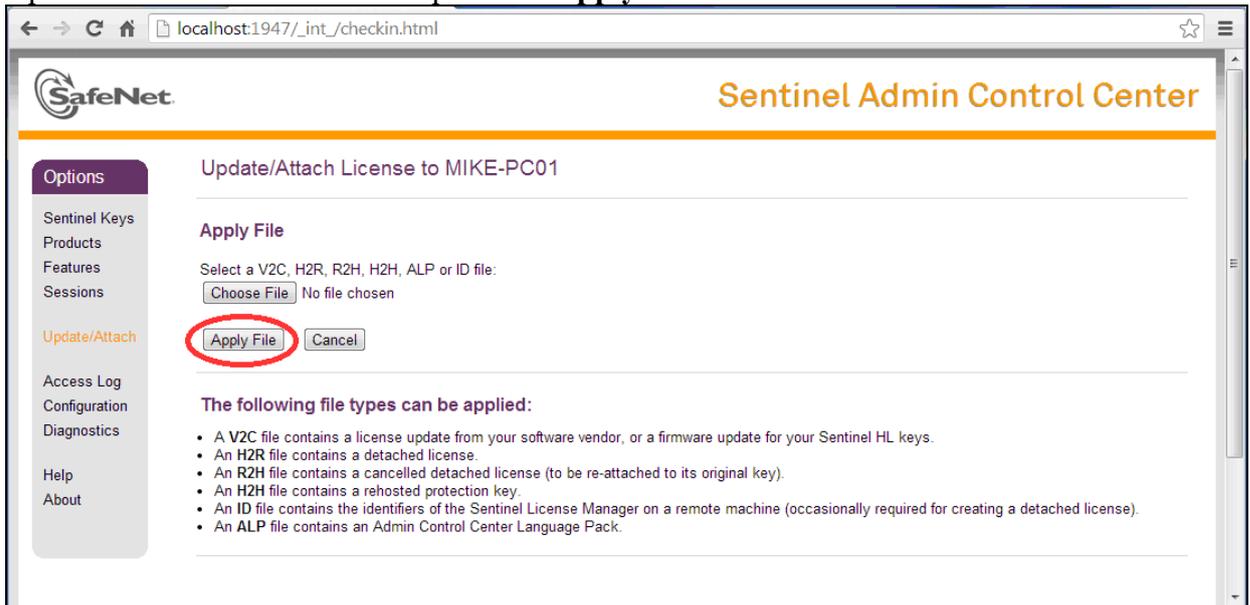
Follow the **Update/Attach** link on this page.



Click on the **Choose File** button.



Upload the received v2c file and press the **Apply File** button.



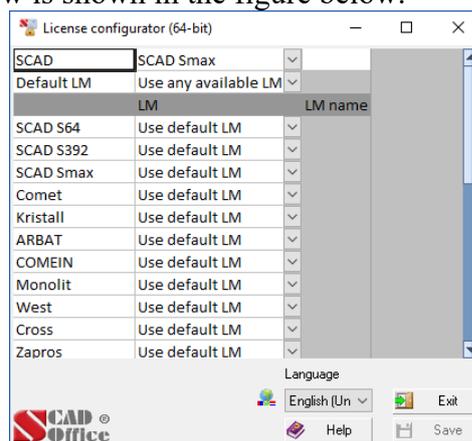
Wait for the message that the information has been successfully written into HASP.

License Configurator

SCAD Office programs are protected from unlicensed use by the HASP HL device. If you have only a local key, then no configuration is required.

If you have a network HASP key (several network keys) and possibly a local key installed on different computers, then you can configure SCAD Office in such a way that different SCAD Office programs will be "directed" to different computers to obtain licenses from *License Manager (LM)*. This can be done by using the **License Configurator**.

This program's window is shown in the figure below.



If you are using SCAD, it is necessary to specify which SCAD configuration should be activated on each particular workstation (for example, Smax, S64, ...). It can be done in the second column of the first line in the table of the program window.

You can specify which server should be used by default (see the second line of the table). The program provides the following variants:

- any available server;
- local key;
- specified server.

In the last case you have to specify the name of the respective server in the last column.

A license server can be selected for each SCAD Office component (SCAD, Kristall, Arbat, ...). You can select one of the following variants:

- default server;
- local key;
- specified server.

In the last case (*specified server*) you have to specify the name of the respective server in the last column. If you have selected the *default server*, it is necessary to check whether the default server setting procedure described above was performed correctly.

If both 32-bit and 64-bit SCAD Office versions are installed on a workstation, then the license configuration should be performed for each version.

Demo Version Limitations

If SCAD is running in demo mode (i.e., the protection device is not installed), the user can calculate the stress-strain state of the design models with not more than 100 nodes and not more than 100 elements.

The program can switch to demo mode if during its operation the local security device has been removed from the USB socket, or the connection with the license server where the network security device is installed has been lost. The user receives a message about the transition of the program into the demo mode and can save (but only once) all the open design models.