Installation Guide

This document contains information to help you install and start EDGECAM. You will find information about system requirements, product installation and troubleshooting.

To run EDGECAM, you need to license your software. For information on licensing your product, please refer to the Licensing Guide.

⚠ Before installing we recommend you ensure your computer meets the <u>hardware and software requirements</u> of EDGECAM.

⚠ To install the EDGECAM software you must be logged on with Administrator rights. If you still experience user rights related problems, please check your 'Group Policy' settings with your system administrator.

⚠ After downloading the EDGECAM Installation ZIP file, unzip the file to a local or network drive. In the root folder, double-click the **Starthere.hta** program to display the installation menu.

Click **Install EDGECAM** and follow the on-screen instructions. By default, the EDGECAM installation will also install Solidlink, Designer, Live Job Reports and CADLinks. For a quick and easy installation, accept all the default choices. At the **Type of Installation** prompt, choose **Typical**.

Contents

Important Information

Note: Sentinel RMS network licensing over VPN is not officially supported and using it can result in intermittent connection issues; therefore, it is not recommended. If VPN has to be used, ensuring that static IP addresses are used at each end of the connection may improve the reliability. Local Area Network (LAN) and Wide Area Network (WAN) connections are recommended for Sentinel RMS network licensing.

System Requirements for EDGECAM

Supported Operating Systems

We recommend you install the latest service packs for the supported operating systems.

System Type: 64-bit Operating System, x64-based processor

- **Microsoft Windows 10 Professional**

- **Microsoft Windows 10 Enterprise**

When installing:

- We recommend that you update to the latest security key drivers (if a security key is fitted).

- You may experience problems with the driver supplied by your graphics card manufacturer - check for the latest driver updates on the web site for your card.

Notes

- EDGECAM will install and run on the 'home' edition of these operating systems. However this is not recommended and we cannot guarantee to fix any EDGECAM issues specifically related to these operating systems.

- The Sentinel RMS license server runs as a system service on Windows 7, Windows 8.1 and Windows Server up to and including Windows Server 2019. Sentinel RMS network licenses can be installed on virtual servers provided that they are locked to a Computer ID USB key. Standalone (single seat) Sentinel RMS licenses cannot be locked against the Computer ID USB keys for use on a virtual server.

- It is *not* recommended to have multiple EDGECAM versions installed on the same computer when the user has limited rights or UAC is ON as this may potentially cause problems with Simulator.

  The Simulator is registered during installation using Administrator Privileges. When the Simulator is run, a check is made to determine whether the correct version is currently registered. If it is not, it must be re-registered which is not possible if the user has limited permissions.

- Domain Controllers are not supported for ToolStore Server and EDGECAM due to SQL limitations.

- Windows XP, Windows Server 2003, Vista, Windows 7, 8 and 8.1 are no longer supported by EDGECAM.

- Windows 8 RT is not supported by EDGECAM.

- SQL Express 2014 has a memory limit of 1 GB and a Database size limit of 10 GB. Performance issues may arise if the database is near this limit. To avoid these issues, if several job images are required, we recommend that they are not stored in the database. Job images can be extracted from the database using a command line option (tsadmin /ExtractJim) which will extract the job images to the ToolStore support folder, JobImages. Please ensure that the server has enough memory to handle the database, if it is not an Express version.

Minimum Specifications

- Dual core CPU; Quad core recommended.

- 4 GB of RAM.

To make the most of background processing and multi-threading, we recommend 2GB RAM for each processor as a minimum.

- 10 GB free disk space for the EDGECAM installation

- Graphics cards - Driver requires OpenGL 3.3:

    - NVIDIA Quadro range

    - AMD Fire Pro range

    - AMD Fire GL range

    - Intel HD range – Iris 540, 5500, 5000, 4400, 4200

    Please ensure the latest WHQL certified driver that supports OpenGL 3.3 for the card is installed.

    Note: Some older cards in the ranges above may no longer be supported. Please check the relevant supplier to see if an up to date driver is available for your operating system:

    - www.nvidia.co.uk/Download/index.aspx?lang=en-uk

    - http://support.amd.com/en-us/download

    - https://downloadcenter.intel.com/

    Other graphic cards may work, but are unsupported.

- 17" Colour monitor (1280 x 1024 screen resolution)

- Mouse including wheel (Intellimouse)

- SpaceMouse/SpaceBall (optional)

- Network card

- Internet Explorer 11 or above

- Internet connection for license activation/updates

- USB port for the EDGECAM security key (unless using keyless licensing)

The ToolStore Server installer will install the following items if they are not already present on your system:

- .NET Framework version 3.5 SP1 (includes .NET Framework version 2.0)

- .NET Framework version 4

- Microsoft Visual C++ 2008 Redistributable Setup

- Microsoft Visual C++ 2010 Redistributable Setup

- Microsoft Visual C++ 2013 Redistributable Setup

The Live Job Reports Server does not support Windows XP or Windows Server 2003; only 7 / 8 and Server 2008 up to 2016 are supported. The Live Job Reports client requires one of the following web browsers:

- Internet Explorer 11
- Google Chrome 28 or above
- Firefox 22 or above.

Supported CAD Systems and Interfaces

CAD Systems

EDGECAM 2022.0 can load data from the following CAD systems (subject to the appropriate license).

- Part Modeler - up to and including EDGECAM 2020.0 (with CAD link support).
- Autodesk Inventor 2019 and 2020 (see below) with CAD link support.
- SOLIDWORKS 2019 and 2020 with CAD link support.
- Solid Edge V18-2019 with CAD link support. EDGECAM and CAD links support synchronous and ordered part files and assemblies.
- Creo™ Parametric 5.0 (previous names Creo Elements/Pro, Pro/ENGINEER, Wildfire).
- CATIA V5 (solids only) up to and including V5-6 R2019. **Note:** CATIA V6 files must be saved as CATIA V5 versions.
- UGS NX – up to and including NX12.
- SpaceClaim 2018 and 2019 with CAD link support.
- KOMPAS-3D (KOMPAS-3D software must be installed on your computer).
- VISI CAD 2020.0 and 2020.1.
- Designer 2020.0 and 2020.1.

CAD Interfaces

EDGECAM 2022.0 supports the following CAD interchange formats:

- ACIS up to and including R18-2019.0 (Solid Machinist license)

- Parasolid 31.1.271 (Solid Machinist license)

- GRANITE One V11.0 M10 (Solid Machinist license)

- DXF (up to and including AutoCAD 2018)

- DWG (up to and including AutoCAD 2018)

- IGES (versions later than IGES 3.0 and up to and including IGES 5.3)

- STL

- VDA-FS 2

- STEP (AP203, AP214 and AP242)

- JT Open 10.2

Solid Machinist for Autodesk Inventor

You can use the free Inventor View application from Autodesk to open the latest Autodesk Inventor ™ files into EDGECAM, on machines that do not have a full Autodesk Inventor installation.

You can download Inventor View from the Autodesk website. We recommend you keep up to date with the latest service packs, also on this page.

To ensure that Inventor models from the latest release can be loaded into EDGECAM, we recommend you use the latest Inventor View version.

(You also require the Solid Machinist for Inventor license to load Inventor models into EDGECAM.)

Installing EDGECAM

To install EDGECAM

1. Make sure your PC meets the [hardware and software requirements](#).

2. Log on with **Administrator** rights. (If you still experience user rights related problems, please check your 'Group Policy' settings with your system administrator.)

3. After downloading the EDGECAM Installation ZIP file, unzip the file to a local or network drive. In the root folder, double-click the **Starthere.hta** program to display the installation menu.

   Click **Install EDGECAM** and follow the on-screen instructions. By default, the EDGECAM installation will also install Solidlink, Designer, Live Job Reports and CADLinks. For a quick and easy installation, accept all the default choices.

4. Follow the on-screen instructions. As the installation proceeds, you can choose between a typical or custom installation. (A Typical installation installs EDGECAM with the most common options and is recommended for most users. A Custom installation allows advanced users to choose which modules to install.)

5. At the end of the installation we recommend you follow the prompt to 'restart' the computer, if this appears.

6. To run EDGECAM, you now need to license your software.

The EDGECAM installation also allows you to install the following additional applications:

- [Live Job Reports](#)
- [EDGECAM CAD Links](#)

Typical or Custom Installation?

When installing EDGECAM you are offered these installation options:

Typical	Installs EDGECAM with the most common options.	Recommended for most users.
Custom	Choose which EDGECAM modules you want to install by checking the appropriate checkbox for the module.	Recommended for advanced users who want to install specific options only (i.e. just installing EDGECAM Editor).

Note: Code Wizard and Code Generator can be installed without EDGECAM.

Copying Existing Data into a New Installation

When you install the latest version of EDGECAM you may need to copy existing data from older installations into the new installation.

EDGECAM offers a file migration tool that takes you through the process of copying your existing files to the new locations. This can be used to migrate data files from EDGECAM 2009 R1 onwards to EDGECAM 2022.0.

To run the application, on the EDGECAM launcher, click the **Migrate Files** button in **Settings**.
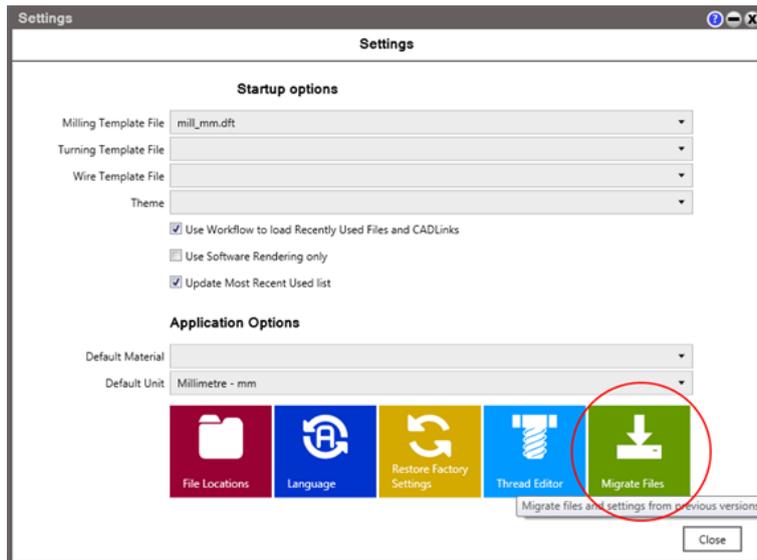
Installing Other Applications

- Live Job Reports
- EDGECAM CAD Links
- ToolStore Server
- Installing EDGECAM without SQL Express
- Autodesk Inventor View

Live Job Reports

This option can be used to install Live Job Reports on machines that you do not want to install EDGECAM on. Note that Live Job Reports is automatically installed as part of the EDGECAM installation.

EDGECAM CAD Links

The **Install EDGECAM CAD Links** option installs a **Launch EDGECAM** button in solid modelling packages.

Clicking this button saves the CAD model, then loads the saved model into EDGECAM. (Beware of inadvertently saving changes you did not want to keep - there is no save prompt for models that have already been saved.)

This is an alternative to performing a standard File Save (in the CAD package) and File Open (in EDGECAM).

The EDGECAM Link button can transfer more data from the model to EDGECAM, such as hole threading data and CPL data. (This information is transferred via a separate XML file, and does not load into EDGECAM from the saved model file.)

You can install CAD links in these packages:

- Autodesk Inventor
- Creo. See Notes 1 and 2.
- Solid Edge
- SOLIDWORKS
- SpaceClaim
- VISI. See Note 3.

(If necessary, you can manually start the CAD links installation by running the **setup.exe** program in the relevant **\CADLinks** folder.)

Notes:

1. SolidLink extracts thread information for tapped holes (created in the hole wizard within Creo) and construction planes constructed in Creo. The CAD Link button in CREO is responsible for extracting STANDARD COSMETIC thread data via a XML file and launches EDGECAM from Creo.

2. The Creo Cad Link requires a file, protk.dat to be written to the Creo text folder. When Creo is upgraded, this file will be missing in the new version. CadLinks should be reinstalled when Creo is upgraded to avoid this problem.

3. After installing EDGECAM Cad Links, you must activate the VISI Cad Link as follows:

   - Locate the VISI installation directory and navigate to find `ext3d.mnu`. This will normally be in `C:\VISI20\User_Profiles\Default\Eng`.

   - Edit `ext3d.mnu` to add the following at the end of the file:

   ```
   "EDGECAM"
   { "EDGECAM", "EXE C:\Program Files\Common
   Files\Hexagon\2022.0\Edgecam CADLinks\bin\VisiCadLink.exe 0
   [EDGECAMLink]"; }
   ;
   ```

ToolStore on a Server

The EDGECAM installation offers the option to **SQL ToolStore**. Choose this if you want to host ToolStore databases on a server, for access by client EDGECAM machines.

To use the option

1. Choose a machine to be the server. This can be a machine with any operating system and SP after Windows XP SP3 and Windows Server 2003.

2. Log on to the server, with **Administrator** rights.

3. Choose the **SQL ToolStore** option.

4. Follow the prompts for the complete installation. This comprises:

    SQL ECSQLEXPRESS Instance, SQL Server Management Studio, and ToolStore Administrator.

5. If the installer reports that there is an **existing installation of SQL Server Management Studio**, acknowledge this message and carry on, leaving this existing installation in place.

Once the installation completes, the server now needs some ToolStore databases to host. Any existing SQL ToolStore databases on the server will be usable. You can also create more by following the instructions for moving databases in the online ToolStore help.

To set up the authentication method

Now choose the authentication method for EDGECAM users connecting to the databases:

-   **Workgroup (SQL Server Authentication)**, using the default User name and Password.

    No further work is required.

-   **Custom (SQL Server Authentication)**

    In this case you will need to create the custom User names and Passwords, referring to the SQL Server Management Studio Express documentation, and the process will be complete.

-   **Domain (Windows Authentication)**

    Domain rights will be applied to each user. The IT Administrator may need to change the permissions via Management Studio in order to give enough rights to the users.

Installing EDGECAM without SQL Express

⚠️ Installing EDGECAM without SQL Express should only be done by corporate users with experience of configuring SQL on the company network.

EDGECAM can be installed without SQL Express and the ECSQLEXPRESS instance. This means users who access the ToolStore database from a network server no longer need to install Microsoft SQL Server 2014 Express on the local computer.

To install EDGECAM without SQL Express, choose a **Custom** installation (rather than 'Typical') when installing EDGECAM. Select the ToolStore option and **uncheck** 'SQL Server Express Instance'.
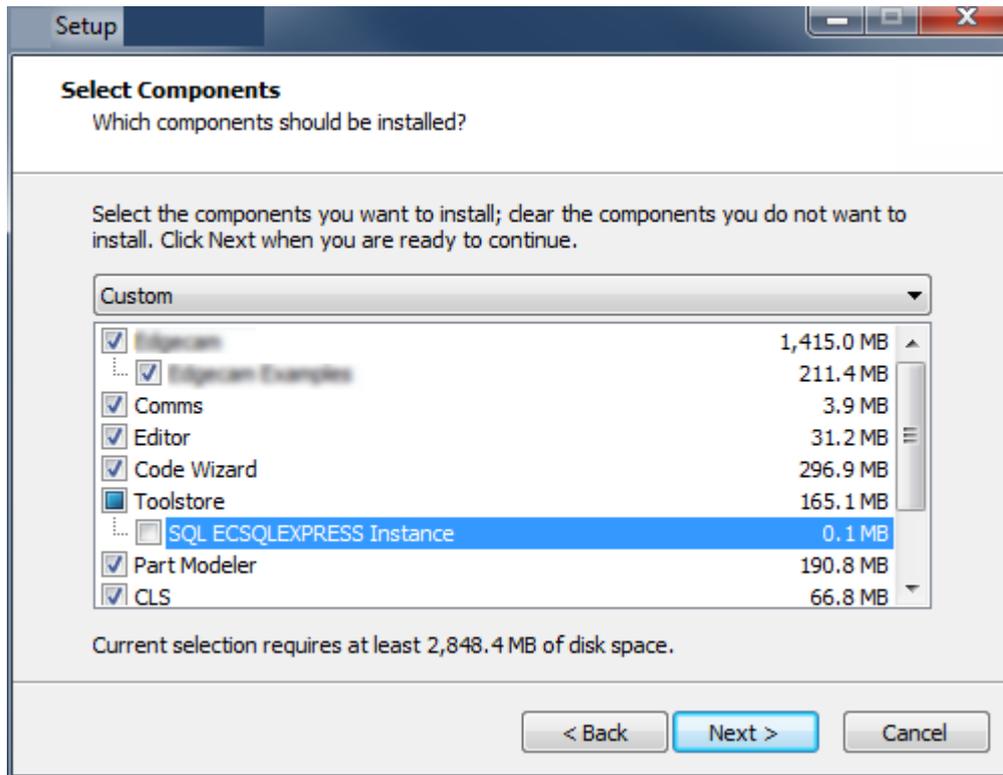
Note

- To allow the client PC to communicate with the server database and ToolStore Administrator to 'find' the database, your IT department needs to manually install Microsoft SQL Server Native Client on each client PC.

- Only available to Domain users as Workgroup users cannot authenticate the server.

- ToolStore Administrator will pause for a few seconds, then recognises there is no ECSQLEXPRESS installed and issue an error message. Ignore the message and go to the "Activate ToolStore database" dialog.

- This is **not** a workaround for SQL installation problems.

Autodesk Inventor View

You can use the free Inventor View application from Autodesk to open the latest Autodesk Inventor ™ files into EDGECAM on machines that do not have a full Autodesk Inventor installation.

You can [download Inventor View from the Autodesk website](#).

To ensure that Inventor models from the latest release can be loaded into EDGECAM, we recommend you use the latest Inventor View version.

(You also require the Solid Machinist for Inventor license to load Inventor models into EDGECAM.)

Installing the Sentinel Driver

The Sentinel key driver is automatically installed as part of the main EDGECAM installation process.

However if you are setting up a machine to be a license server, using a NetSentinel key and without an EDGECAM installation, you will need to manually install the driver.

To install the driver

1. Browse to the folder

    \Sentinel RMS Licensing\Driver for Computer ID Key.

2. Run **Sentinel System Driver Installer 7.5.8.exe** and follow the on-screen instructions.

If you need to remove this driver:

1. Click Windows **Start** menu ► **Control Panel** ► **Add or Remove Programs**.

2. Locate **Sentinel System Driver Installer 7.5.8**.

3. Click the **Change/Remove** button and follow the on-screen instructions.

The latest driver supports:

- X86 and 64 bit PCs
- Windows XP
- Windows 7
- Windows 8.1

EDGECAM Educational Systems

EDGECAM Educational is the licensed educational version of EDGECAM using the EDGECAM Educational and EDGECAM Solid Machinist for Education licenses (using a standalone or multiple user network security key).

⚠️ These licenses are only issued to educational establishments and cannot be used by industrial users.

⚠️ Students who wish to use EDGECAM software outside the educational establishment can do so by running EDGECAM with a Homework license (see below).

Loading and saving data in EDGECAM Educational systems

With the EDGECAM Educational licenses you **can**:

- Load .ppf and .epf files (the ability to load .ppf files allows you to view the example files installed with EDGECAM)
- Save EDGECAM part files in .epf format
- Generate NC code

With the EDGECAM Educational licenses you **cannot:**

- Save .ppf format files
- Save IGES, DXF, STL format files

Also see Different EDGECAM Types and Features

The Homework License

The Homework license allows students to run educational software to continue their course work when away from college.

If the college has purchased the Homework License option, they will manage the distribution of the licenses to the students. For each classroom license, up to ten Homework licenses can be generated.

The college will issue a Homework license email to the student, which contains the information required to obtain a Homework license.

The features of a Homework license are:

- Load part files created in an industrial licensed version of the product
- Load and save educational part files
- Access 'Ultimate' level functionality
- Access to all CAD file loaders
- Cannot generate NC code

⚠️ The use of Homework licenses in the classroom is not permitted.

When starting EDGECAM with a Homework License, a message will be displayed. Click **OK** to continue.

Different EDGECAM Types and Features

The following table summarises the features of each EDGECAM type:

Feature	Industrial license	Educational license (classroom)	Homework License/Mode
Load .ppf file	Yes	Yes	Yes
Save .ppf file	Yes	No	No
Load .epf file	No	Yes	Yes
Save .epf file	No	Yes	Yes
Generate NC code	Yes	Yes	No
Save IGES, DXF, STL files	Yes	Yes	No
Use PDIs	Yes	Yes	No

Evaluating EDGECAM Functionality

An Evaluation license provides you with a *fully functional* EDGECAM system for a limited time period. This allows you to test EDGECAM in your own working environment.

Every time EDGECAM is started, the number of remaining days is shown on the EDGECAM splash screen. The number of days remaining is also displayed using **Help** menu ► **About EDGECAM**.

Evaluation licenses can be revoked, meaning that they can be removed from the PC for installation on another one. Note that the number of days remaining will be the number of days left when the license is revoked from the original PC.

Evaluation network licenses can also be commuted.

Timed Licenses

A timed license provides you with a *fully functional* EDGECAM system for a limited period. A timed license may be issued to a new customer prior to a permanent license or when transferring from one license type to another.

Timed licenses can be revoked, meaning that they can be removed from the PC for installation on another one. Note that the number of days remaining will be the number of days left when the license is revoked from the original PC.

Timed network licenses can also be commuted.

Uninstalling the Software

1. Run the standard Windows option for uninstalling programs from the Control Panel.

2. Select **EDGECAM <version number>** in the list.

3. With a right mouse click, open the shortcut menu and click **Uninstall**.

4. On the dialog, click **Yes**.

This uninstalls all EDGECAM components.

For a complete uninstall you may want to uninstall the following programs (again using Windows Control Panel).

Program	Control Panel entry	Comment
ECSQLEXPRESS SQL server instance	Microsoft SQL Server 2014	Take care not to remove any other server instances that may be installed.

Remove Tool

We would recommend using the Removal Tool:

`C:\Program Files\Hexagon\EDGECAM 2022.0\cam\Remove20220.exe`

This gives the ability to remove other related programs and clean up the registry and temp files.

Licensing your EDGECAM Installation

To run EDGECAM, you need to license your software.

*   All newer EDGECAM installations use Sentinel RMS™ licensing. For detailed information on installing and activating standalone and network license, please refer to the Licensing Guide.

*   For information about legacy (NetHASP and NetSentinel) hardware keys, please refer to the Legacy Licensing Guide.

EDGECAM License Types and Expiry Dates

There are three types of software license:

Fixed Term

These are the default license type and allow software versions released prior to the Update Expiry Date in the license to be run. If your license is of the Fixed Term type, an Update Expiry month and year, for example, November 2013 will be displayed. In this example, any new software versions released in December 2013 or later will not run with the license file. If the expiry date of the license is then extended to November 2014, any EDGECAM releases issued up to that date can be run. The expiry date is extended when the maintenance plan is renewed, which is typically every 12 months.

Timed

Timed licenses run for a fixed number of days from the time that the license file is generated and, typically, these are used in evaluation and temporary licenses. Once the timed period has expired, it may be extended or the license type changed to Fixed Term.

Free to use

Some EDGECAM licenses, for example, Advanced Customisation (Product Code ENPCI-J) can be added to a license configuration free of charge. However, they will only be available in the software while the main Fixed Term license has an active Support and Maintenance contract. In the case of the Advanced Customisation license, any custom macros or dialog masks created by or for the customer will not run if the Support and Maintenance contract has lapsed.

Running EDGECAM

⚠ You can run EDGECAM without Administrator rights. To install the software, you must be logged on with Administrator rights.

To run EDGECAM

1. Click Windows **Start** menu ► **EDGECAM 2022.0** ► **EDGECAM 2022.0**.

Restoring Factory Settings

EDGECAM offers a utility that resets the user interface to the default settings and deletes any temporary or cached files that may be causing the software to be unstable.

To restore factory settings

1. On the EDGECAM launcher, click the **Settings** button.

2. Select the **Restore Factory Settings** option.

You should use the Restore Factory Settings option if

- an EDGECAM toolbar or the browser can no longer be displayed

- EDGECAM does not start

- EDGECAM appears to be unstable

- advised by an EDGECAM support engineer

Advanced Installation Options

Automated Installation from a Network Drive

There is a mechanism for automating the installation of EDGECAM from a network drive which is described in the following document in the \Automated Installation folder:

\Advanced Installation Documents\Automated Installation\EDGECAM Automated installation.pdf

Frequently Asked Questions

No Security Key Found

Network Security Key has been Removed

ToolStore Administrator Error During Installation

Can I update my existing installation of EDGECAM?

Can I have more than one installation of EDGECAM on my PC?

No Security Key Found

⚠️ Only applies to network license installations that use a key

The '**No security key can be found on the network**' message may be displayed for one of several reasons:

- The network license server and/or license file has not been installed.

- The security key is not attached to the license server.

- There is a fault with the USB port on the license server, or the port is disabled.

- The server's firewall is blocking the license requests (try exempting the service in the Firewall settings).

Removing the Network Security Key

If the security key has been removed from the license server, and a user tries to access an EDGECAM application, this dialog will be displayed:
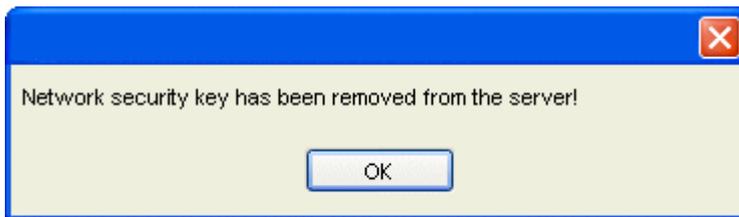
If the security key is removed from the license server while an EDGECAM application is running, the following dialog will be displayed after approximately three minutes.

If you replace the security key and click **Retry Connection**, then you can continue. Alternatively you can close the application by clicking **Close Application**.

❗ The dialog text may vary from the text shown here, depending on the actual problem.

ToolStore Administrator Error During Installation

When installing EDGECAM, you might see the error message "Creation of the ToolStore Workgroup user account failed: The server principal 'toolstore_user' already exists".

This happens for the following reason:

During installation, EDGECAM creates an SQL user called 'toolstore_user' which is used by ToolStore Administrator if SQL Authentication has been chosen. This user is created automatically by the EDGECAM installation; there is no need for you or your IT department to create or edit it.

If the SQL user has been created or edited manually in an installation, the next EDGECAM installation will recognise this and display the above error message. You should contact your IT department to verify that the SQL user works correctly (e.g. ToolStore Administrator works with SQL Authentication). If necessary, delete the SQL user and re-install EDGECAM.

Installing EDGECAM

Can I update my existing installation of EDGECAM?

No. The latest version of EDGECAM must be installed as a **new installation**.

EDGECAM offers a file migration tool that takes you through the process of copying existing data from an older installation into the new installation.

Can I have more than one installation of EDGECAM on my PC?

Yes, multiple installations (different versions) of EDGECAM can be installed on the same PC.