Installation and Administration Guide of Visio P&ID Process Designer Licensing Manager

January 2024

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Chapter 1 Introduction

This manual describes the Visio P&ID Process Designer licensing procedure and all necessary components. You will get to know the licensing model and licensing types, as well as the installation and configuration of the License Manager for network and standalone operation.

The NLM (Network License Management) and all additional components for the registration and activation of standalone and network licenses are part of the delivery scope of the Visio P&ID Process Designer.

☞ **Caution: In case of questions and problems, please consult the support of ITandFactory GmbH prior to the execution of procedures!**

For questions, please contact us:

Website: www.visiopid.com
Email: info@visiopid.com
Support: https://visiopid.com/ostic/login.php

Chapter 2 Overview

Visio P&ID Process Designer deploys the Sentinel RMS Technology for the purpose of software protection and licensing.

The Visio P&ID Process Designer License Manager offers tools, which support the system administrator, as well as the user, during the registration, activation, and administration of licenses.

In addition to this, the License Manager offers features for checking in and checking out the network licenses for mobile workstations.

The networking functionality of the License Manager enables the use of a licensing pool within a (company) network, whereby it is not necessary to register each single workstation.

The licenses are provided by a NLM server (Network Licensing Manager Server) and will be taken off from individual Visio P&ID Process Designer workstations as and when required – as long as a license is available.

A network license for a Visio P&ID Process Designer - workstation (client) is then booked, if this application is activated on a workstation (client). It does not matter, how often the software is used by the client; NLM always writes off one license. This means, only one license is required for an application per workstation.

You can administer the NLM server and the licensing pool by deploying the registration and licensing service program, and by using the Sentinel RMS administration tool "WlmAdmin.exe".

Chapter 3 Types of Licenses

Three different types of licenses are supported in Licensing Manager: Demonstration (demo), standalone, and network licenses.

A demo license may be activated on any random computer. Standalone and network licenses depend on the computer hardware configuration and can be activated based on computer ID. A licensing code may be requested for a certain Visio P&ID Process Designer for specified release.

Demo Licenses

If Visio P&ID Process Designer is installed for the first time, the user has full access to all features for the duration of **7 days** (from the first day of use). A new environment is a pre-requisite for the demo mode, because a Visio P&ID Process Designer can be used only once on a computer in demo mode for 7 days. One must note that the product in demo mode is not deployed in an existing Visio P&ID Process Designer domain and productive environment.

Standalone Licenses

Standalone (single workplaces) licenses are computer specific licenses, which means, the licenses are linked to the computer hardware configuration, and may only be used on this computer for certain duration or for unlimited period. Standalone licenses are not transferable, which means, they may not be checked out for another computer.

Network Licenses

Network licenses are handled by ITandFactory Network Licensing Manager. Network licenses are linked to the computer hardware configuration, on which the NLM is running. Furthermore, the number of users are defined in a network licensing code. NLM controls the number of client accesses to software using this user number. The maximum number of clients may simultaneously connect and use Visio P&ID Process Designer to the limit of number of users defined in the licensing code.

Furthermore, network licenses can be checked out from the NLM for using Visio P&ID Process Designer offline from the NLM within a defined time period. (You can find more information on this issue in chapter 6).

Standalone and network licenses are normally activated for an unlimited time period. On demand, activation is possible for a certain time period.

Chapter 4 Licensing Model

The Visio P&ID Process Designer product also requires a license for the database connection in addition to their own licenses. This means, for every Visio P&ID Process Designer workplace, the following two licenses are required:

Name	ID
DB-Client Access	CDSN_DBCAL
Visio P&ID Process Designer	VPID_DESIGNER

Chapter 5 Installation and Configuration

This chapter describes the installation and configuration procedure of the client, and of the NLM server.

Requirements

For the operation of Licensing Manager, the following requirements are necessary at the workstation (client) and/or on the server:

- Installation of Windows 11,Windows 10 or Windows Server 2016 /2019/2022
- An installed and adjusted TCP/IP protocol

Generally, the installation on a server and the installation at client are different.

Installation and configuration at Client

The installation is done via the installation setup.exe file available on the Visio P&ID Process Designer DVD.

 Caution: The backup measures must be made on the respective system prior to installation.

No information is required during the Visio P&ID Process Designer installation regarding selection of license type. The decision, whether the Visio P&ID Process Designer should be licensed locally (standalone) or via a network license manager, can be made at any time after the installation is complete. In any case, the tools required for administration and registration of licenses are included in the standard installation of Visio P&ID Process Designer.

If you would like to license the Visio P&ID Process Designer Standalone, you do not need to make any further changes to your system, as all necessary steps are automatically made in your system. When you first install Visio P&ID Process Designer on your computer, the setup enters a variable named "LSHOST" in the initialization file "vpid.ini" - under section "ITF-VPID". Using this variable, you can specify the type of licensing. If the LSHOST variable is set to NO-NET, it searches for Visio P&ID Process Designer license locally on your computer. The local licenses can be standalone licenses, demo licenses or licenses checked out by an NLM

LSHOST=NO-NET

Three variations may be considered if you would like to perform licensing of Visio P&ID Process Designer in connection with a NLM server:

1. Visio P&ID Process Designer is installed on a workstation (client), which is always connected to the network and has permanent access to the NLM server. In this case, you open the edit vpid.ini file and switch the licence setting to

   LSHOST=Servername

 Caution: Please ensure that you declare the correct name of the server, and alternatively its IP address.

   Example:

The name of the network computer, on which the network version of Licensing Manager has been installed, is e.g., "NLM_SERVER". To enable Visio P&ID Process Designer to check out a license from this NLM server, the name of the NLM server must entered as follows in the file "vpid.ini" in the Windows user directory:

```
[initialization file for VPID]
.
[ITF-VPID]
#
#   Common settings
#

#|
#   If LSHOST is set to anything other than NO-NET, the application will
#   look for a license server on the computers named by LSHOST
LSHOST=NLM_SERVER
```

We recommend that you make any changes to the "vpid.ini" with the tool Config Manager: (can be found under Start> Programs> ITandFactory> Administration> Config Manager).

2. If more than one NLM-server exists in your company and licenses are spread, Visio P&ID Process Designer will find those servers via the variable LSHOST in the subnet. It is important, in which order the names or IP-addresses of all NLM-server are written, since Visio P&ID Process Designer checks from left-to-right. All server-names must be separated by **"~"**. Example:

LSHOST=server1~server2~server3

To avoid unnecessary loss of performance, you should enter only the NLM servers that are really in use on your network, and they must have the appropriate licenses for the installed version of Visio P&ID Process Designer. We suggest a maximum of 5 NLM-servers.

3. Visio P&ID Process Designer is installed to a mobile computer (e.g., a laptop), which has temporary no access to the NLM server. In this case, you need the supplementary installation of NLM Client Tools next to the code line entry into vpid.ini, which is described above, so that Visio P&ID Process Designer can be performed independently from an NLM server. The NLM server may check out licenses for a defined time period via the help of Client Tools. In "vpid.ini" the variable LSHOST would be changed as follows:

LSHOST=NO-NET~[NLM_SERVER]

With this setting, you can now run Visio P&ID Process Designer with local licenses and also with the NLM.

In addition to the entry in the "vpid.ini" described above, the NLM client tools must be installed on the computer. With client tools licenses can be checked out for a defined period of NLM server. Detailed information can be found in chapter 6 "Checkout Licenses".

The following steps must be performed if NLM Client Tools is to be installed on the system for the purpose of the checking in and out of licenses:

- Please run the installation routine of the Licensing Utilities.

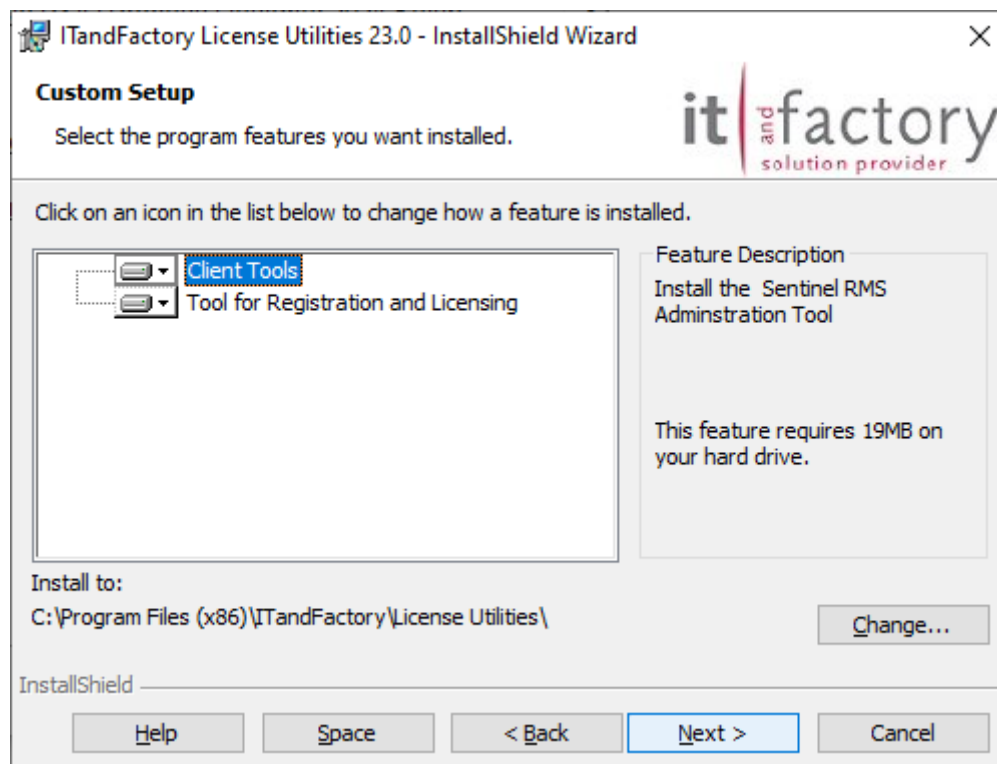- Upon clicking into NLM Setup dialog box, accept the default-settings and continue.

Image 1: Select the Features of License Utilities

Please click on "Install" in the next dialog box. Subsequently, Setup performs the configured installation. The basic tasks of a NLM installation for clients are thus completed, and the necessary tools for checking in and out will be installed onto your system.

Installation and Configuration of the NLM Server

You will find the installation routine for the License manager on the Visio P&ID Process Designer DVD in the directory …\Install\Licensemanager\ Sentinel_RMS.
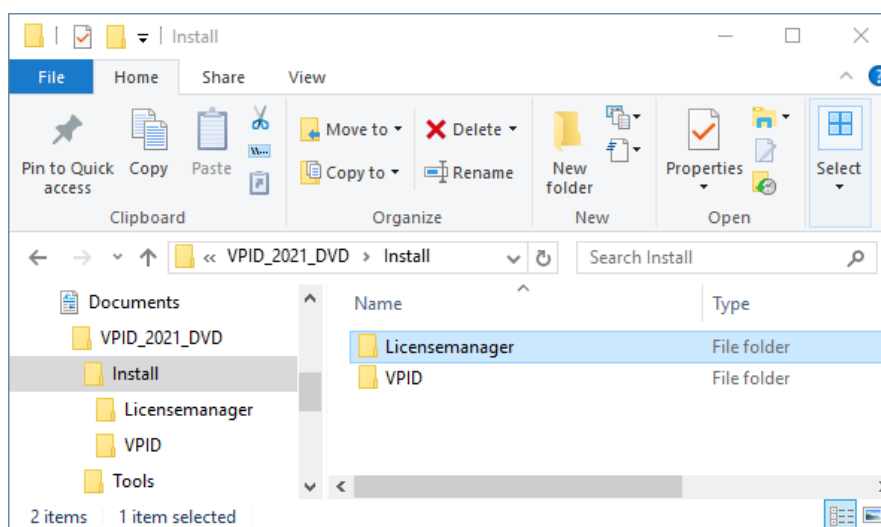
Image 2: Setup Directory for the NLM

☞ **Caution: The installation of the License manager requires full administrative access rights.**

☞ **Note: If you have already installed an older version of the NLM server on the computer, please remove this NLM installation. Then install the Sentinel RMS License Manager 10.0.100, which is supplied with the current version.**

The installation of the License Manager consists of two components:
Sentinel RMS License Server (for network-licenses) and License Utilities (to administer licenses, to check in and out and to register and activate licenses).

The installation of Sentinel RMS Network License Manager and also of the License Utilities can be done by the installation browser from the Installation tab.
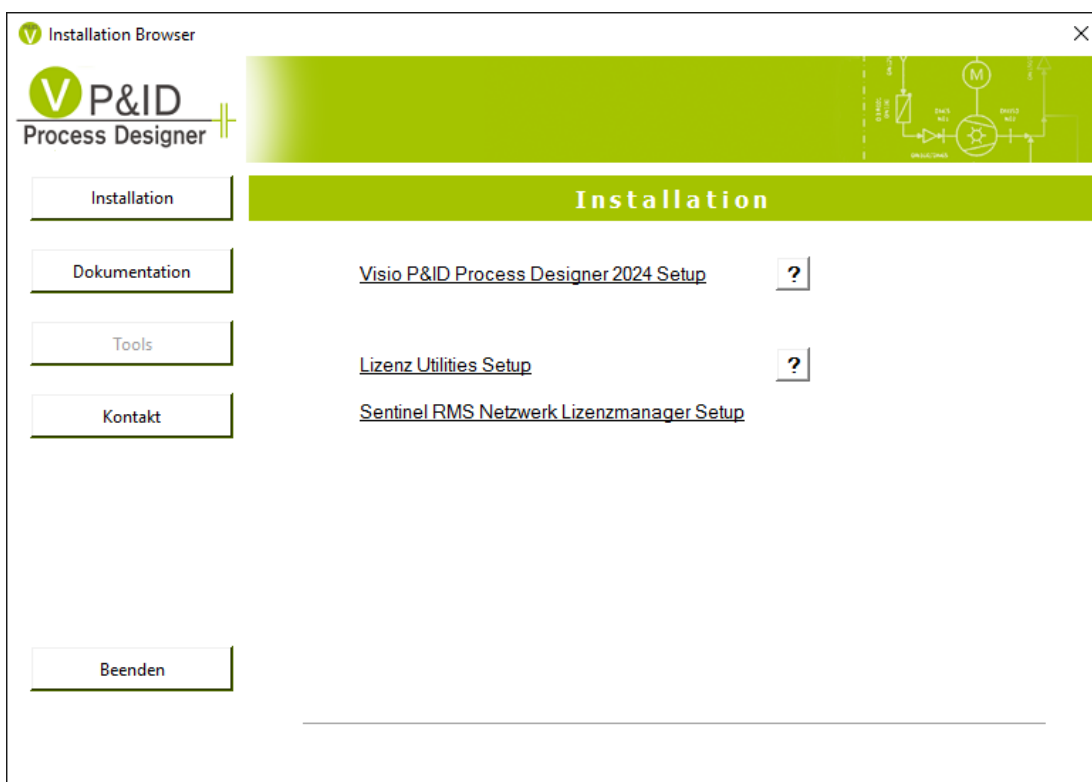
Image 3: Installation Browser

To start the Installation-wizard for the License Utilities, click on "License Utilities Setup" and follow the instructions.
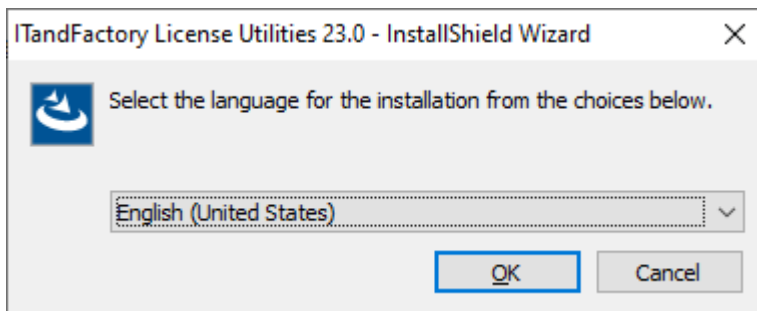
Image. 4: Language selection
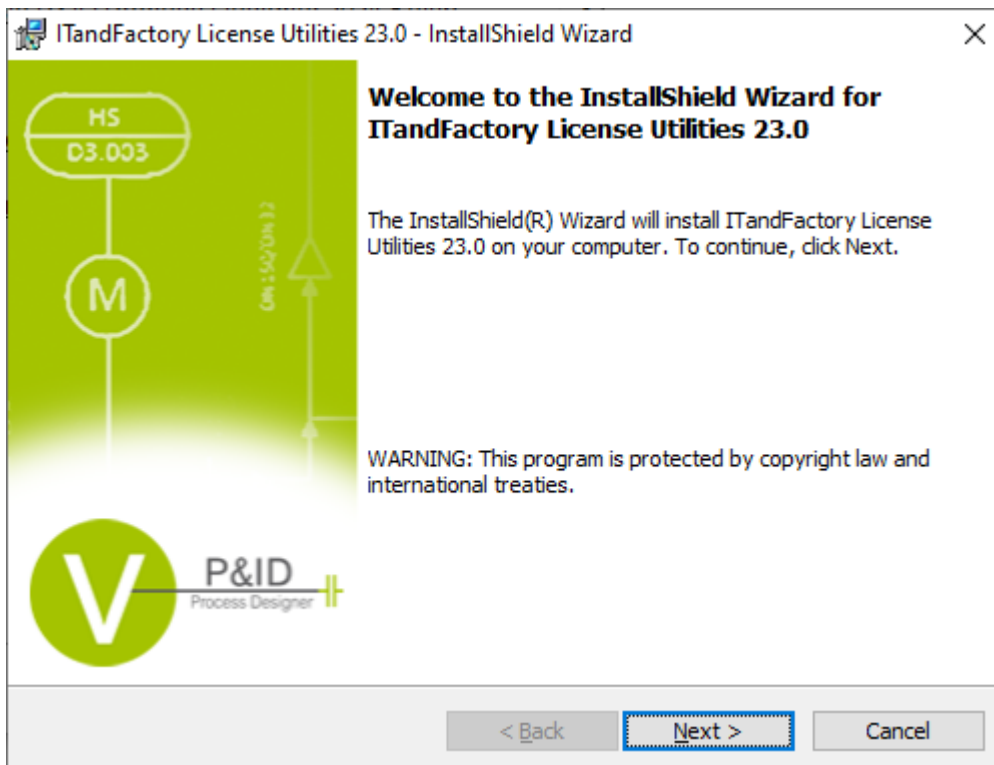
Image 5: Welcome-dialog of the License Utilities Setup
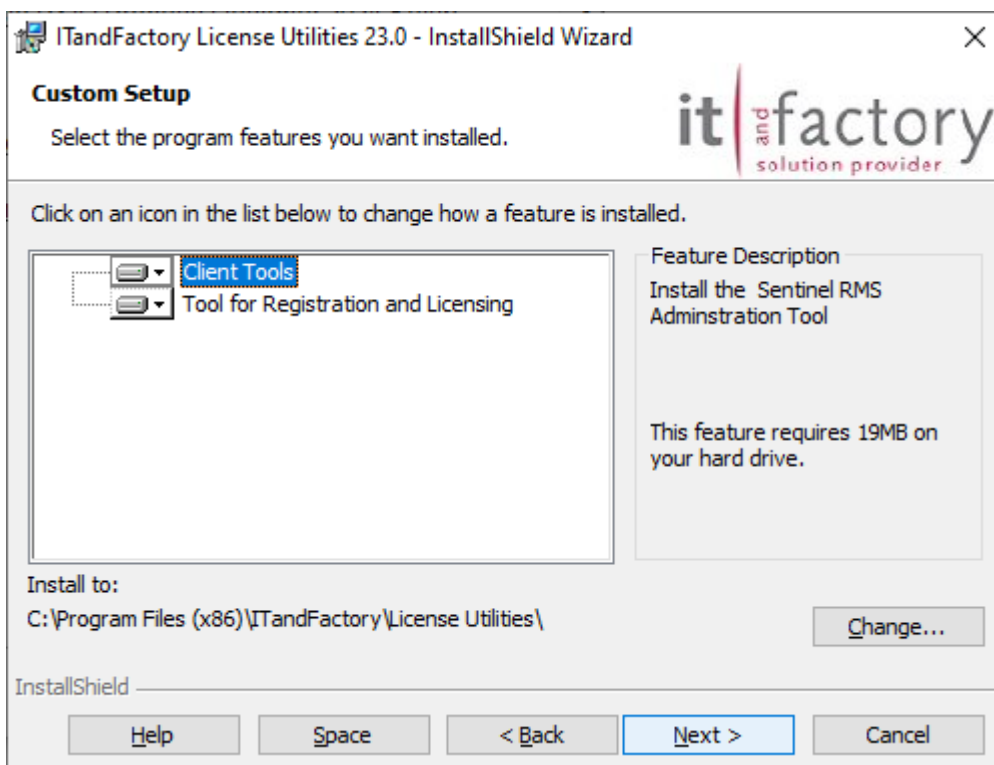
Image 6: Choice of Features and the Installation Directory

Apart from choosing the installation directory, no changes are necessary here.
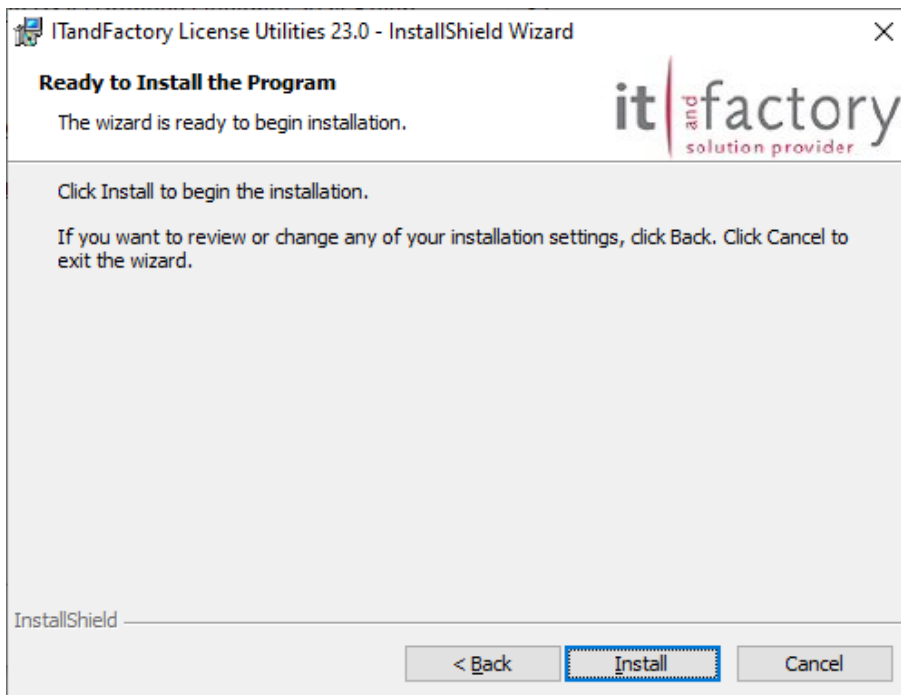
Image 7: Verification of NLM Installation

Subsequently, the installation is performed and completed with the corresponding command.

Image 8: This dialog box displays that the installation has been completed successfully.
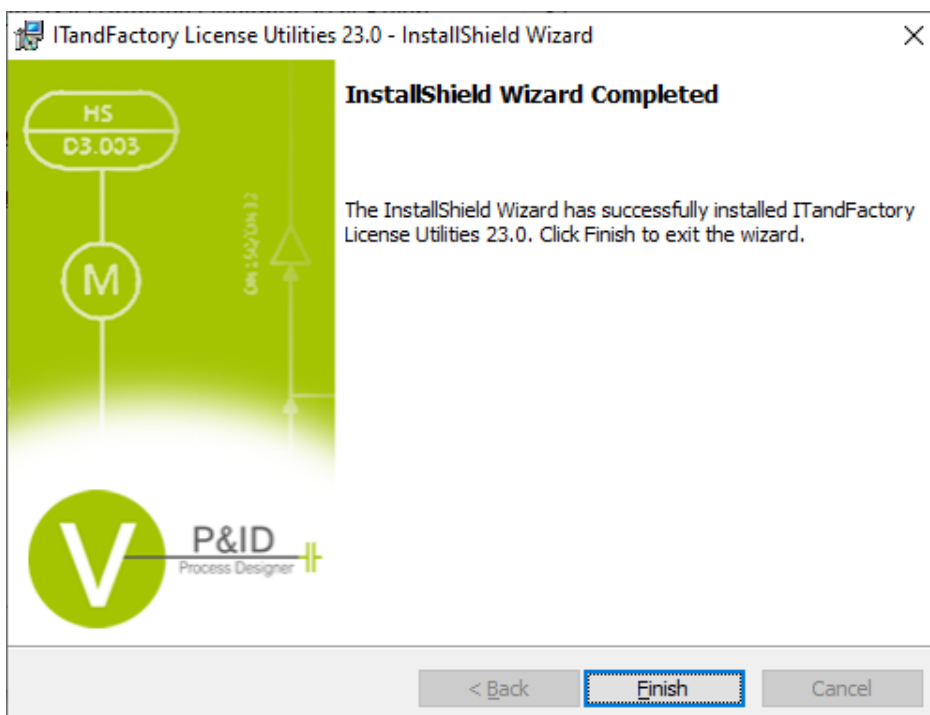
Installation of the Sentinel RMS License Manager

To start the Installation-wizard for the Network-License manager, please click on "Sentinel RMS License Manager" in the installation browser and follow the instructions.

Image 9: Welcome dialog box
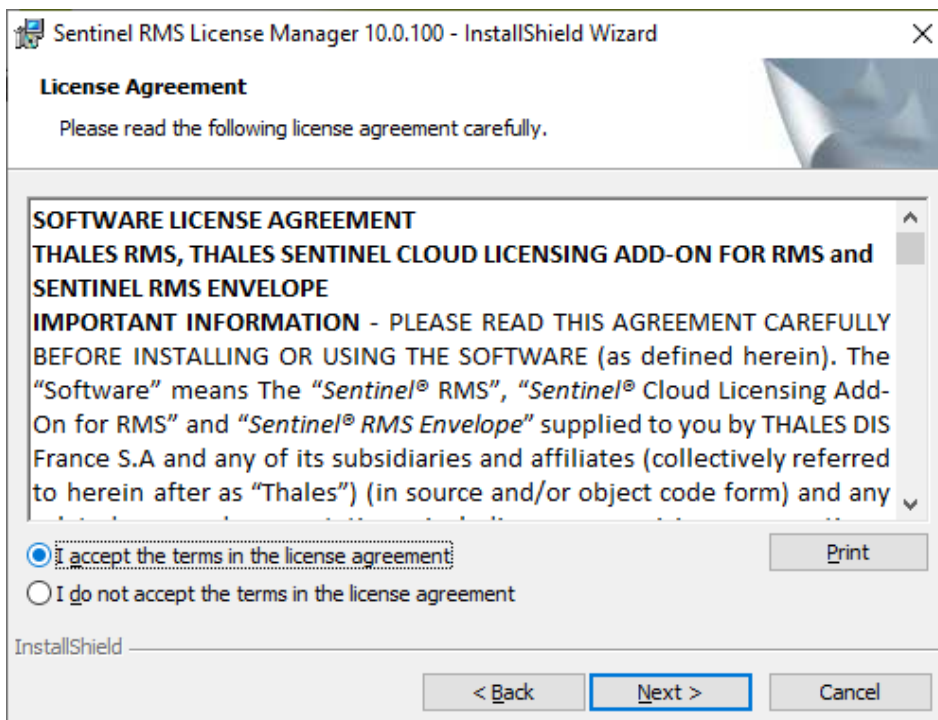
Image 10: License Agreement of SafeNet
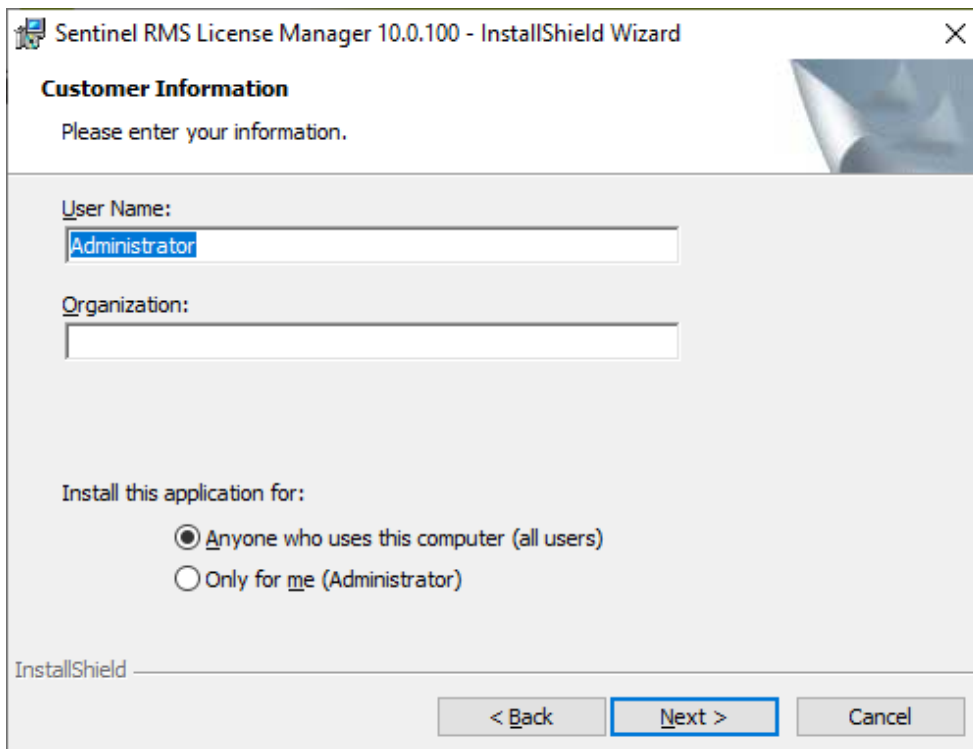
Image 11: Customer Information
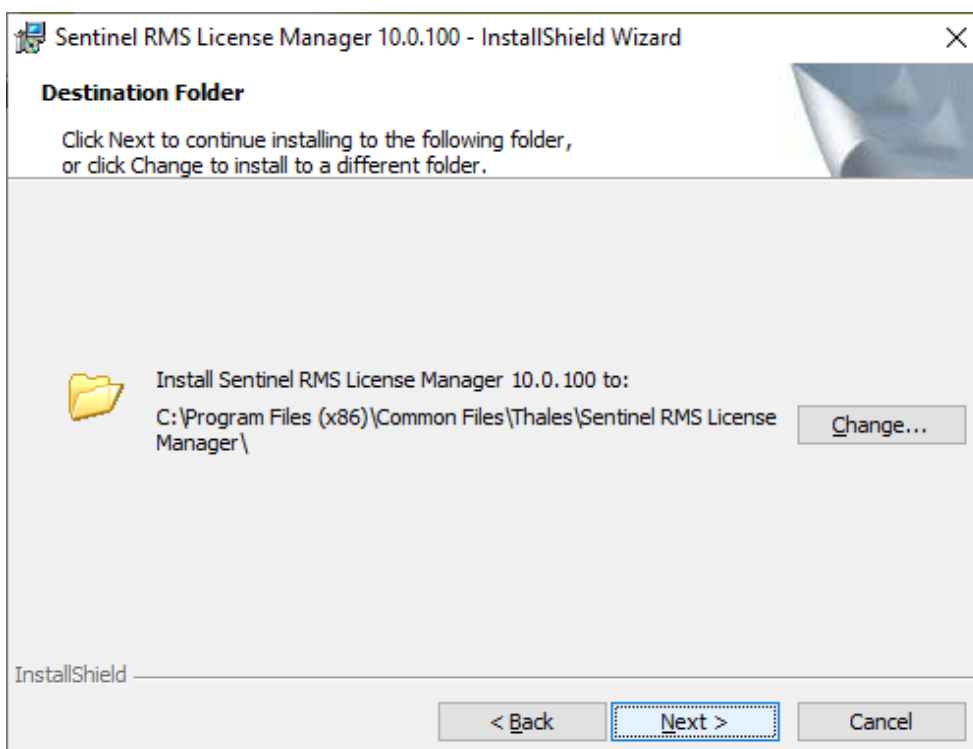
Image 12: Destination folder of Sentinel RMS

The destination folder of Safenet cannot be changed by the user.
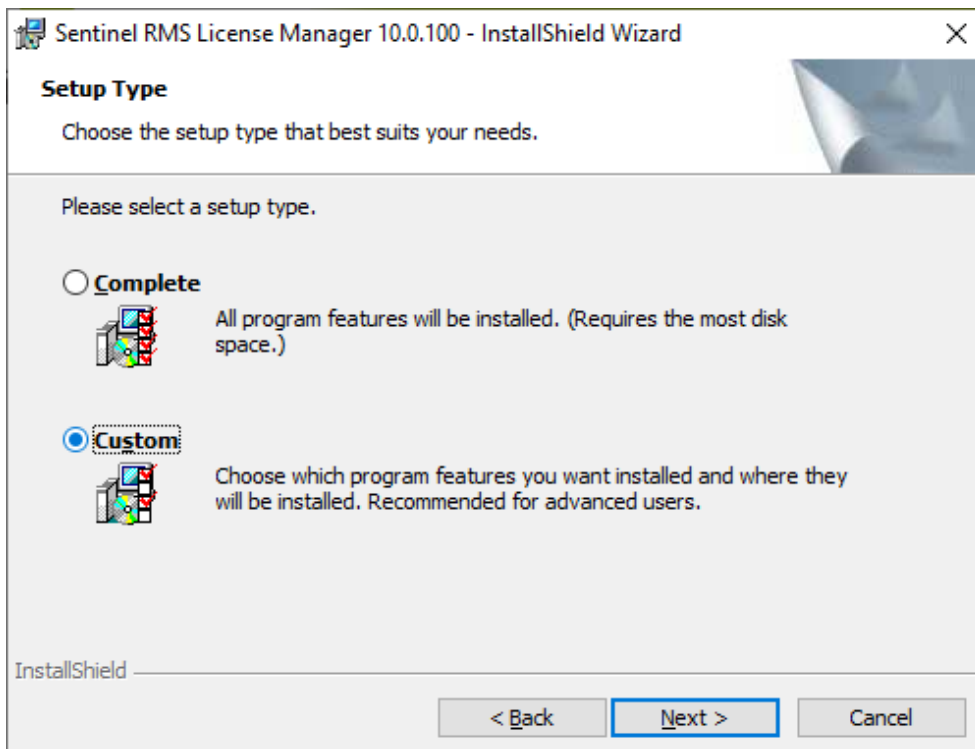
Image 13: Setup type of Sentinel RMS

Pease select "**Custom**" to continue the custom installation.
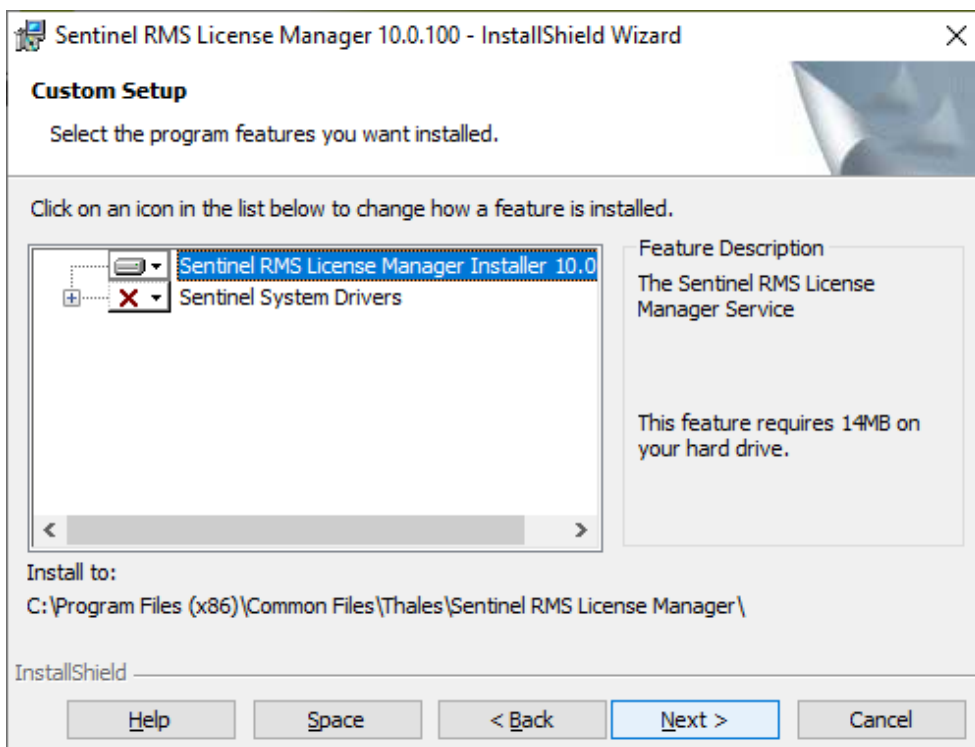
Image 14: Selection of Sentinel RMS Features

Make sure that the feature "Sentinel RMS License Manager Installer 9.7.2" is selected. Sentinel System Drivers are not used in CADISON License Management and therefore this feature does not need to be installed on your system

Image 15: Dialog box for unblocking Sentinel RMS in the Windows Firewall
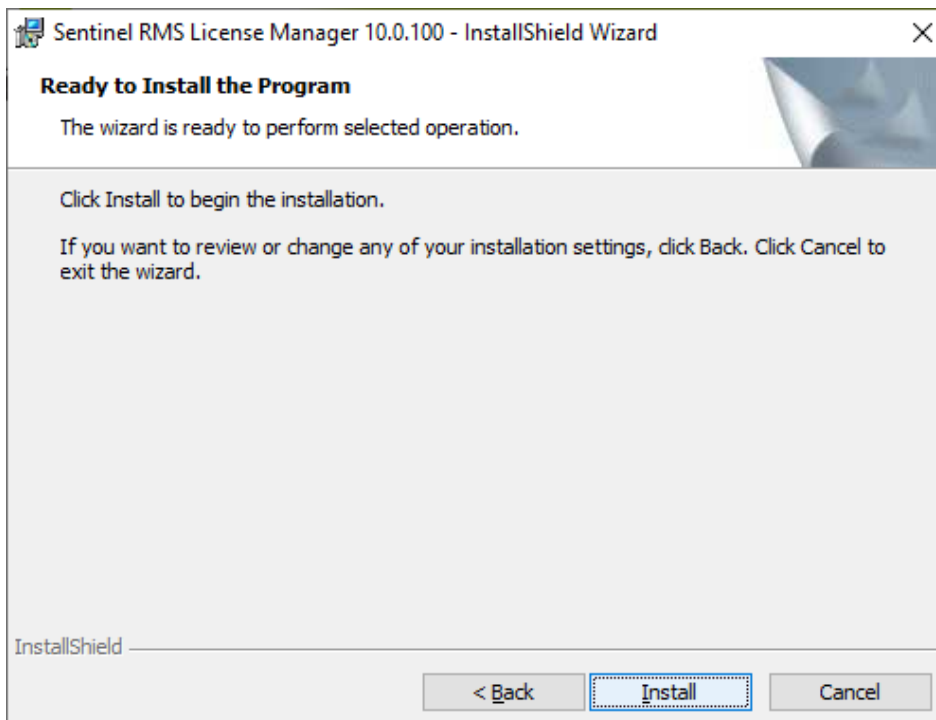
Image 16: Click on "install" to start the Installation

Image 17: The installation has finished successfully.

Inspection of the Working Environment

The Service Sentinel RMS

The Sentinel RMS Service is activated on the system upon successful installation of the NLM server (see image 18).
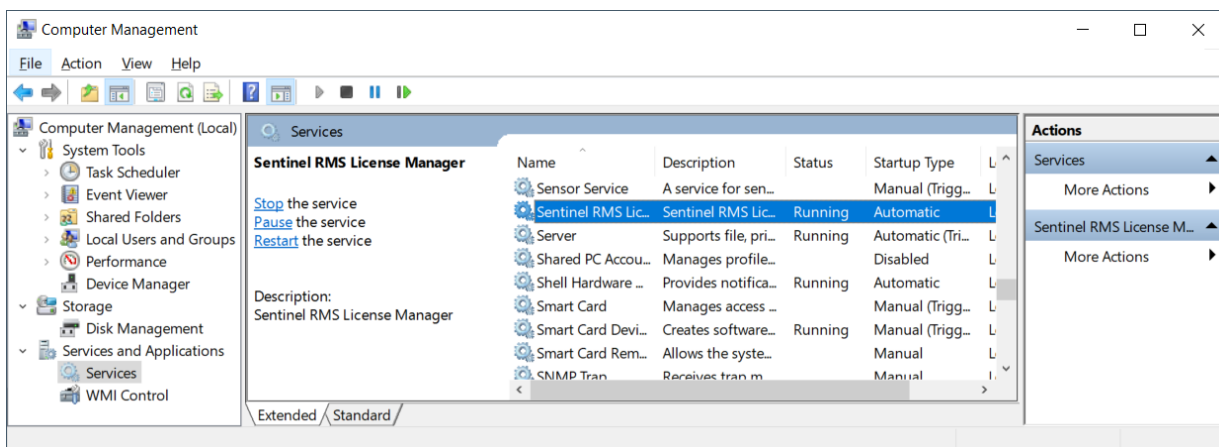
Image 18: Windows Box for Services

The Environmental Variable LSERVRC

The system environmental variable "LSERVRC" is adjusted in the system by Setup. This environmental variable serves to localize the license file.
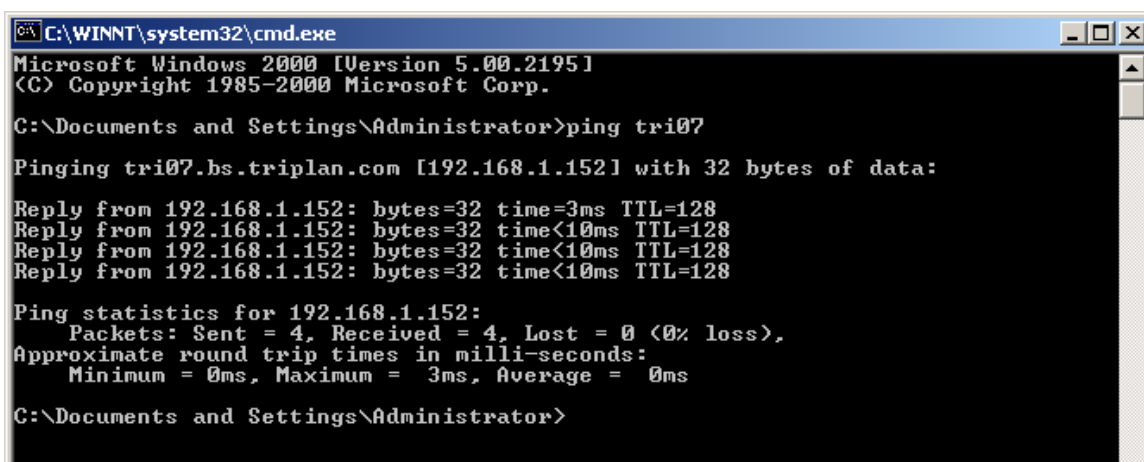
The default directory for the license file is found in the installed directory "…\VPID\System" for a client installation, and in the standard directory for a NLM server installation, in which also other NLM program files are installed.

Communication Client/Server

Communication between the NLM server and the client is performed via the TCP/IP network protocol. The client must be capable to identify the NLM server in the network.

If a client cannot find the NLM server, it must first be inspected if a network connection exists to both from a physical viewpoint. In the course, please ensure that the network plugs and cables are intact. Furthermore, it must be guaranteed that **Port 5093** is not blocked by a firewall, and another service. This port is used by Sentinel RMS on standard terms and was registered for "SafeNet" on regular terms. It may be recommended that the NLM server and the client be found in the same sub-network.

You may test if the client can process the name and the IP address of the NLM server (see the example in illustration 19) via the help of the diagnosis program "PING".

Image 19: Performing the PING Command

Chapter 6 License Administration

License Request

New licensing codes are required for the latest releases upon new installation and update installation.

License codes for a new standalone workplace and an NLM (network) are generated by ITandFactory GmbH based on a Request File. The necessary Request File must be generated by the user on his/her workstation and on a NLM server.

The generation of a request code may be performed directly on a Standalone and NLM installation, or also later. The necessary steps for the generation of a Request File for standalone licenses are performed as follows:

From Start Menu / Programs / ITandFactory / Administration menu select "Registration and Licensing". The dialog box "ITandFactory Registration and Licensing" is then opened.

Image 20: Window for Generate Request Code

All relevant information regarding licensing of Visio P&ID Process Designer is displayed in the tab "Generate Request Codes". If Visio P&ID Process Designer is installed on the system, then the two

necessary licenses are automatically selected. Further fields are automatically assessed, such as software product and release, as well as computer name and ID. The fields "First Name", "Last Name", and "Company" must be filled manually.

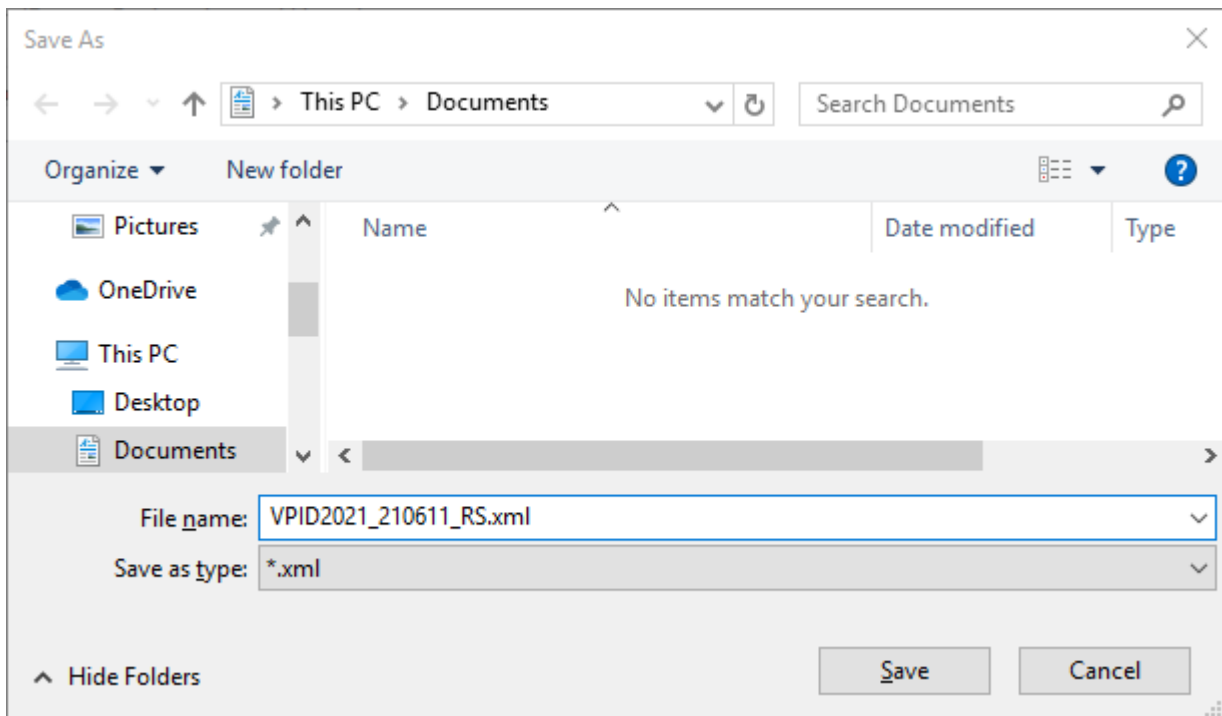A new dialog box opens to verify the data upon clicking the button "Generate Request Code":

Image 21: Window for Verify Request Code

Please proceed by clicking "OK" upon inspection of your data.

The request file will be sent as email attachment in XML format to register@ItandFactory.com from this dialog box if the option "Send by Email" is set.

Alternately, the file can be stored in a defined directory if the option "Save as" is set.

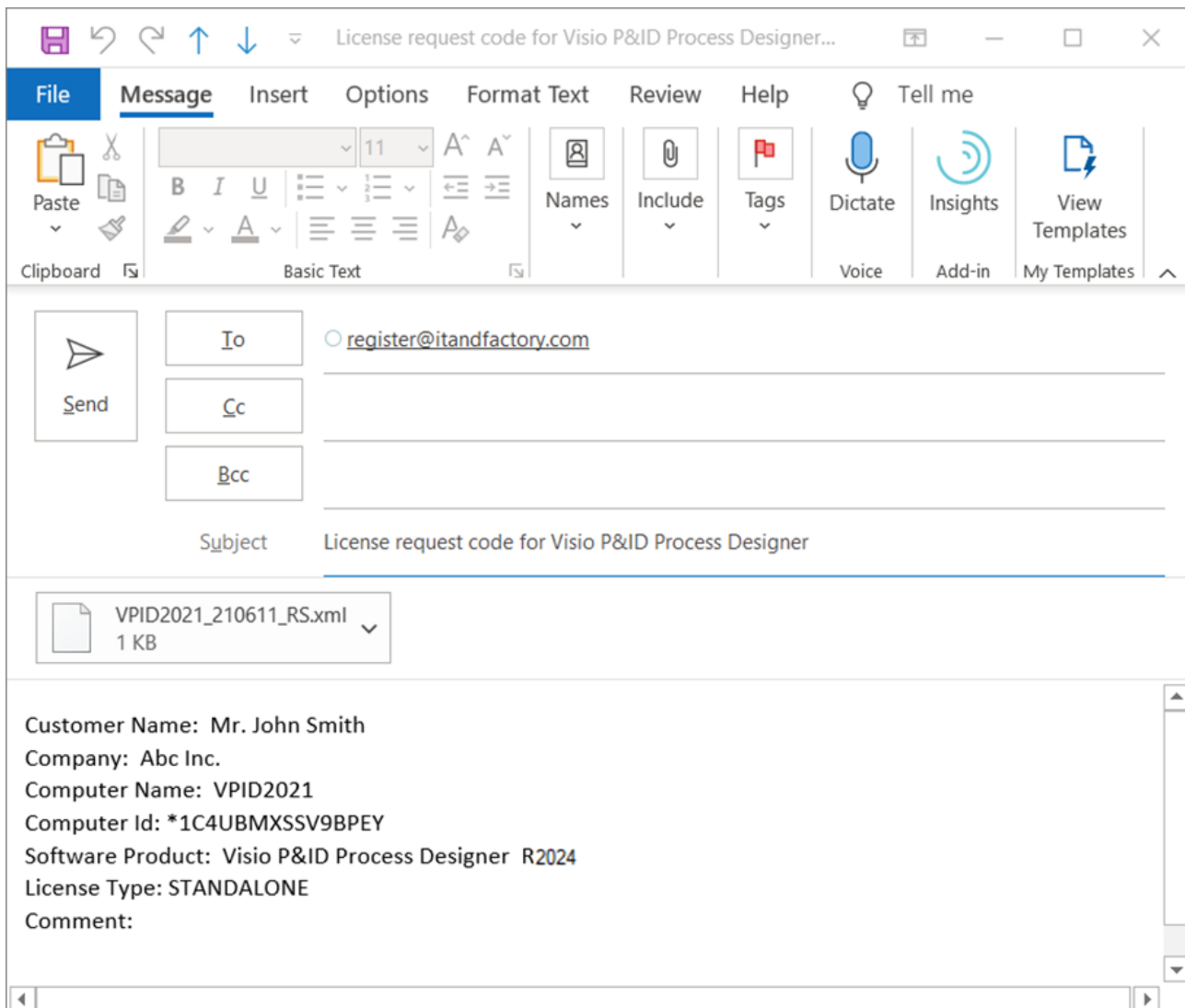**Image 22: Dialog Box to Store Request File**

Image 23: Outlook Email Dialog Box Set for Transmission

If you want to generate a request file for a NLM server, you may choose the service program "Registration and Licensing" from the Start-up Menu / Programs / ITandFactory, almost like on a client.
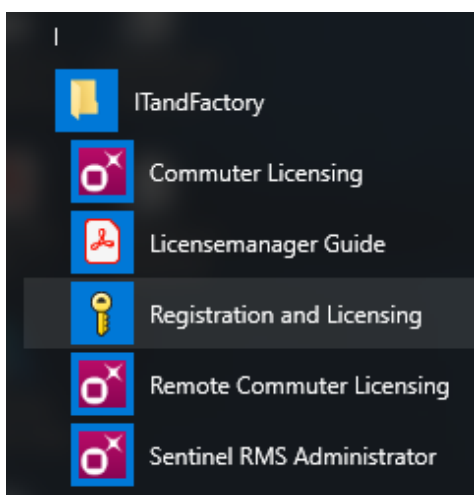
Image 24: Menu to Open Licensing Tool

The licensing type must be set to "NETWORK" on the "Generate Licensing File" tab.

Here, you can adjust the number of respective modules, for which you need a license. You may simultaneously change the number of licenses of several modules. For this, press and hold the CTRL key, move the mouse cursor to the modules and select the respective modules by using the left mouse key. Now enter your desired quantity in the entry field below on the right, and finally click the button "Change Count". The remaining entries are made same as the Standalone Licensing Request procedure.

Image 25: Generate Request File for NLM

If you do not have an email client installed on the server, the request file can be stored on a network directory and sent from another computer to ITandFactory via email later.

Activation of Licenses

You shall receive the requested license codes from ITandFactory in form of xml-file as email attachment, which was generated based on your request file.

⚓ Caution: The licenses may only be valid on the computer, for which the license codes were generated.

The following steps are necessary for the activation of license codes on the system:

1. Run the Licensing Tool (registration and licensing) from the start-up menu found on the NLM server and workstation

2. Change to the tab "Activate License Codes" found in the dialog box "ITandFactory Registration and Licensing".

3. Click on the button "Open License File". A dialog box opens, from which the license file may be chosen. The file choice must be accepted by clicking or double-clicking the button "Open" (see illustration 26).
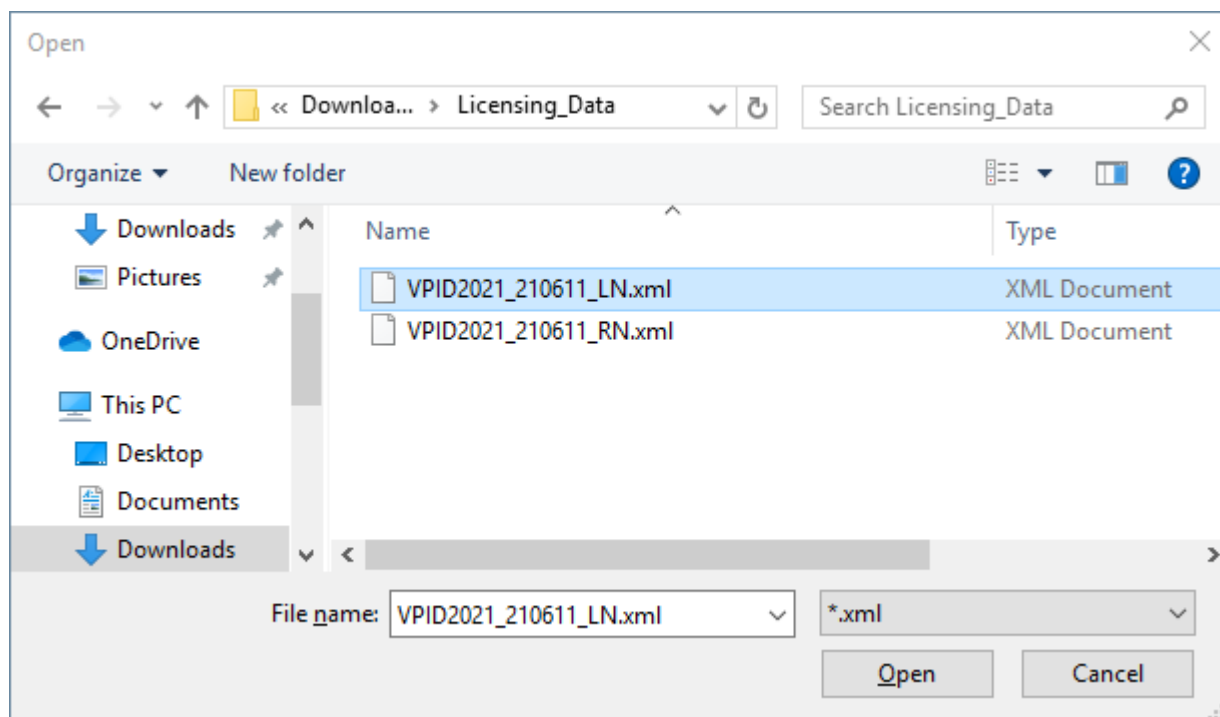

Image 26: Dialog Box for Opening License File

4. If the selected file contains the fitting data for the deployed computer, it will open, and the content is displayed in the dialog box (see illustration 27).

5. You can now activate the license codes for your deployed system by clicking on the button **"Activate License Codes"**.

Image 27: Tab for Activating License Codes

Upon transfer of the license code to Sentinel RMS on a standalone computer and NLM server, the following message appears: "Action Successfully Performed". Otherwise, an error message appears "License Already Exists…"

⚓ Caution: With enabled User Account Control (UAC) on the System it could be happen that the licensing tool does not have write privileges on the license file. In this case you will receive the following error message: "Sentinel RMS Development Kit: Error [143] Failure in accessing the license file." The problem can be solved by running the licensing tool as Administrator.

Inspection of Licenses

Via the "License Utilities" tab found in the dialog box "ITandFactory Registration and Licensing", the licenses may also be inspected on the standalone computer, and on all NLM servers found in the sub-network.

If the licenses are to be inspected on the NLM, please click on the button "Display Network Licenses". The program searches for all NLM servers of the sub-network and lists them. All modules are displayed in the list, as to which licenses exist in the chosen NLM server. Furthermore, in this list, you can view how many licenses are available for a software module in total, and how many of them are presently deployed and checked out.

Further information regarding license type and validity of the license code is displayed in the field on the bottom right upon clicking a module in the list.

To update information in the list, you must click once again on the button "Display Network licenses".

Please click again on the button "Display Standalone Licenses" to display such standalone license from the locally deployed computer.
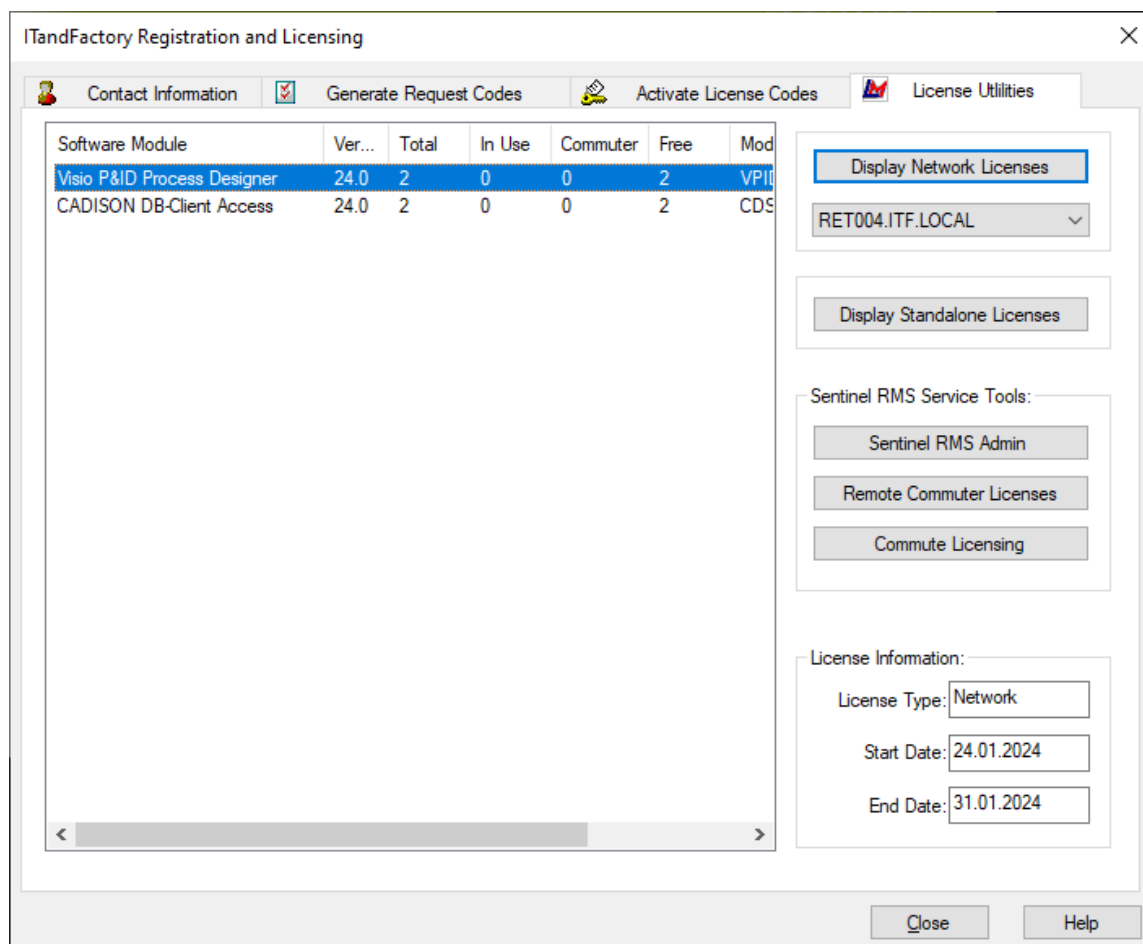
Image 28: Dialog Box for Inspection and Administration of Licenses

The Sentinel RMS Tool "Wlm Admin" will be installed on your system, just as you installed the NLM server or Client Tools, as described in chapter 6.
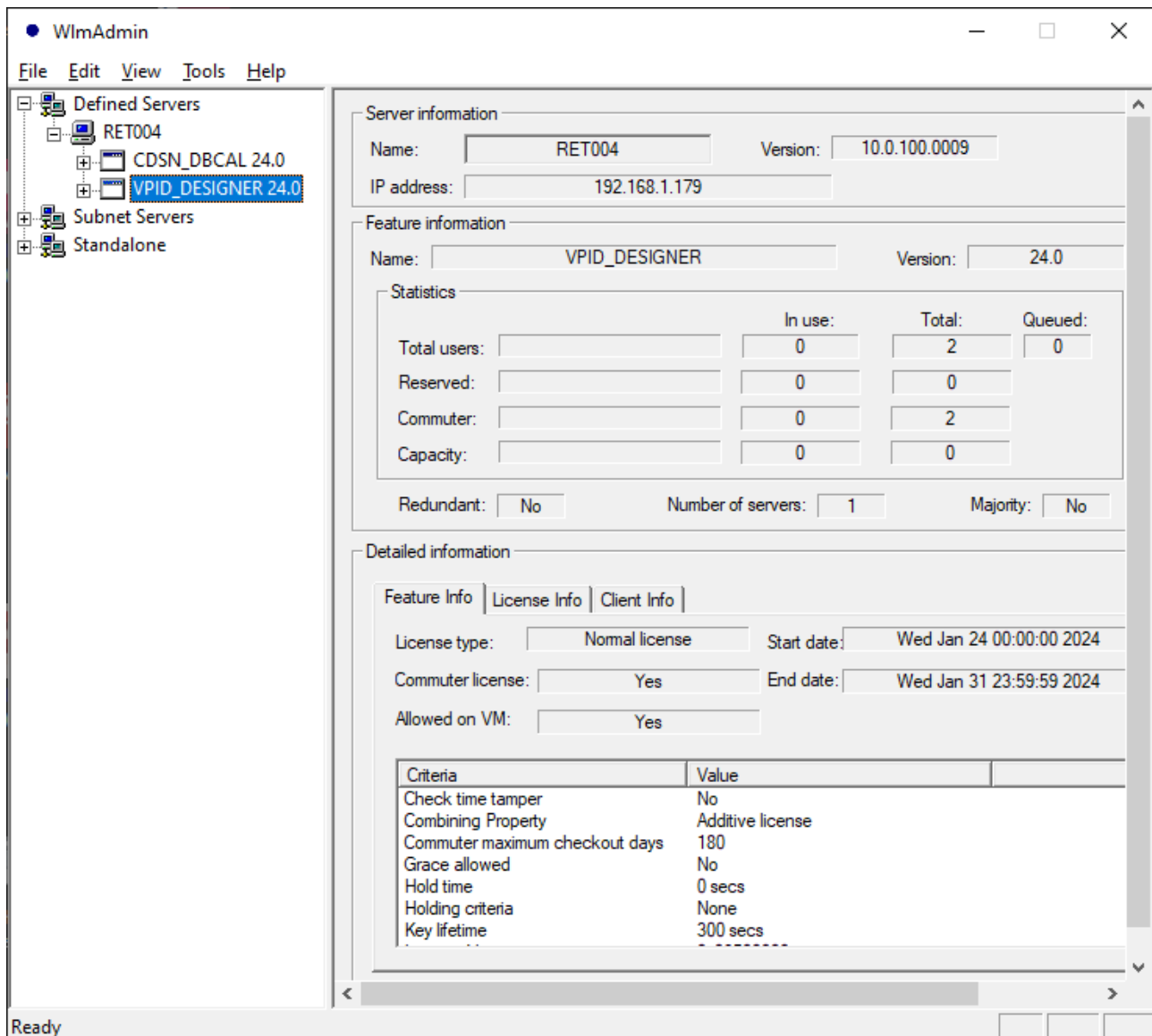
Image 29: Sentinel RMS Administration Tool

In this dialog, the following functions are provided in the menu "Edit" and "Tools", which the current installation does not support:

- Reservation File
- Redundant License File
- Service Loader

Check-in and check-out of Licenses

The option to check-out licenses, for a computer e.g., a notebook, is an important feature provided by the Sentinel Licensing Management System. You may then operate outside of the company network using Visio P&ID Process Designer with these checked out licenses. If the computer is re-connected to the company network, the licenses may again be checked in to the NLM server. The customer may define the time duration for check out. If this duration expires, then licenses are automatically deactivated on the client and activated on the server so that they are again available for all clients within the network. Of course, you may manually check in the checked-out licenses again prior to the maturing of this duration.

Two alternative options are available to check out licenses from a client within Sentinel RMS.

 Caution: To be able to use the checked-out licenses on the client computer, the code line "LSHOST=NO-NET" must be inserted into the "vpid.ini" file.

Check Out of Licenses in Direct Access Fashion

Direct access means, the client can identify the NLM server in the network, and the client is capable to check out licenses from the server. If the client fulfils this requirement, the client may check out the available licenses from NLM via the help of the Sentinel RMS Tool "WCommute.exe".

Working with the Tool "WCommute"

If the NLM Client Tool is installed on the system, it may be run via the Start-up Menu / Programs / ITandFactory / Commuter Licensing. If the dialog box for "Registration and Licensing" is open, clicking on the button "License Check In/Out" may run the tool.
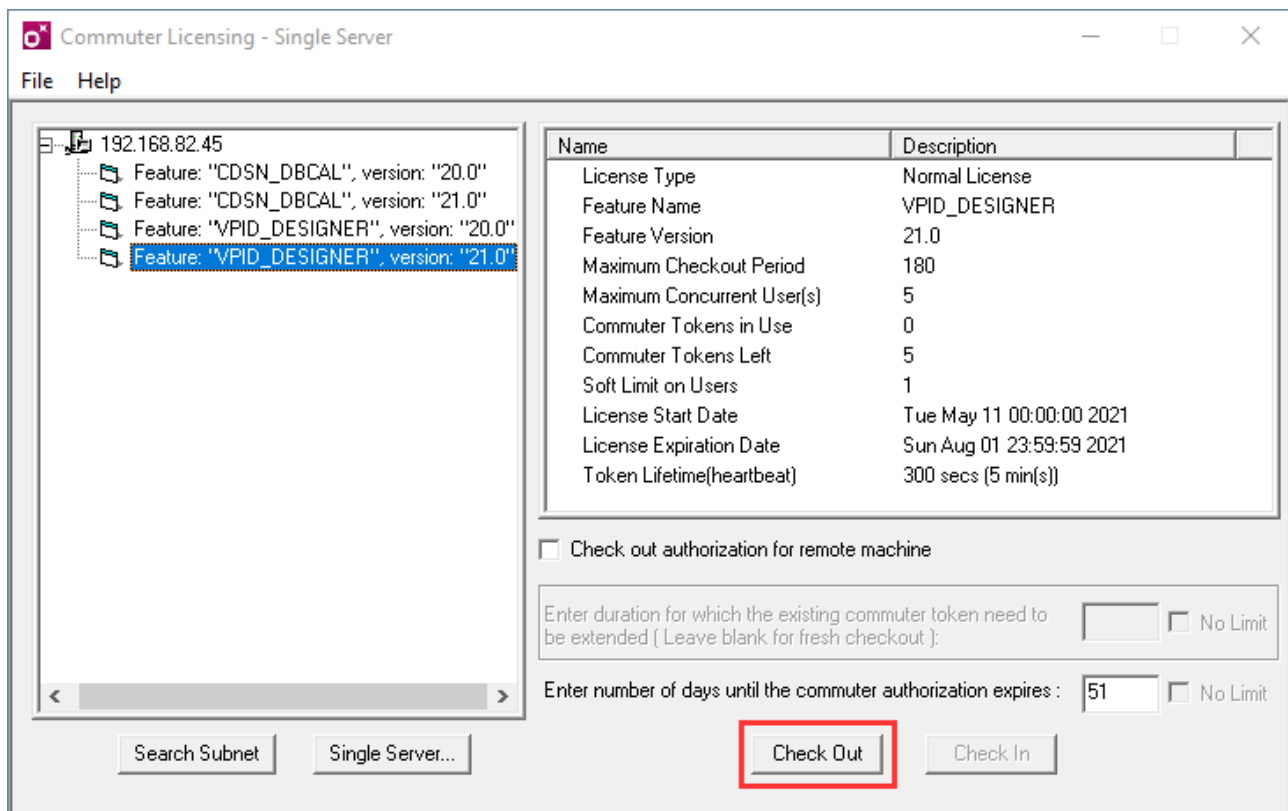
Image 30: Sentinel Tool for License Check Out

The dialog box now opens (see illustration 30). If all the NLM servers of the network should be listed, please click on the button "Search Subnet". By this, all servers are displayed that possess available licenses. If a certain server should be displayed, please click on the button "Single Server". A dialog box is subsequently opened. Please enter the name and the IP address of the desired NLM server and confirm with "OK" (see illustration 31).
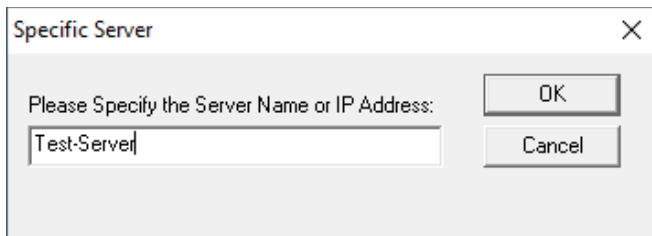

Image 31: Entry Field of Specified NLM server

All licenses available on the server are now displayed and may be checked out if you mark a feature in the list and accept via the "Check Out" button. Please take care to define the number of days just as you need it. 180 days are a default value here. A red check sign is set in front of the feature chosen (Software Module ID) upon successful check out of a license. This procedure must be performed for both Visio P&ID Process Designer features,
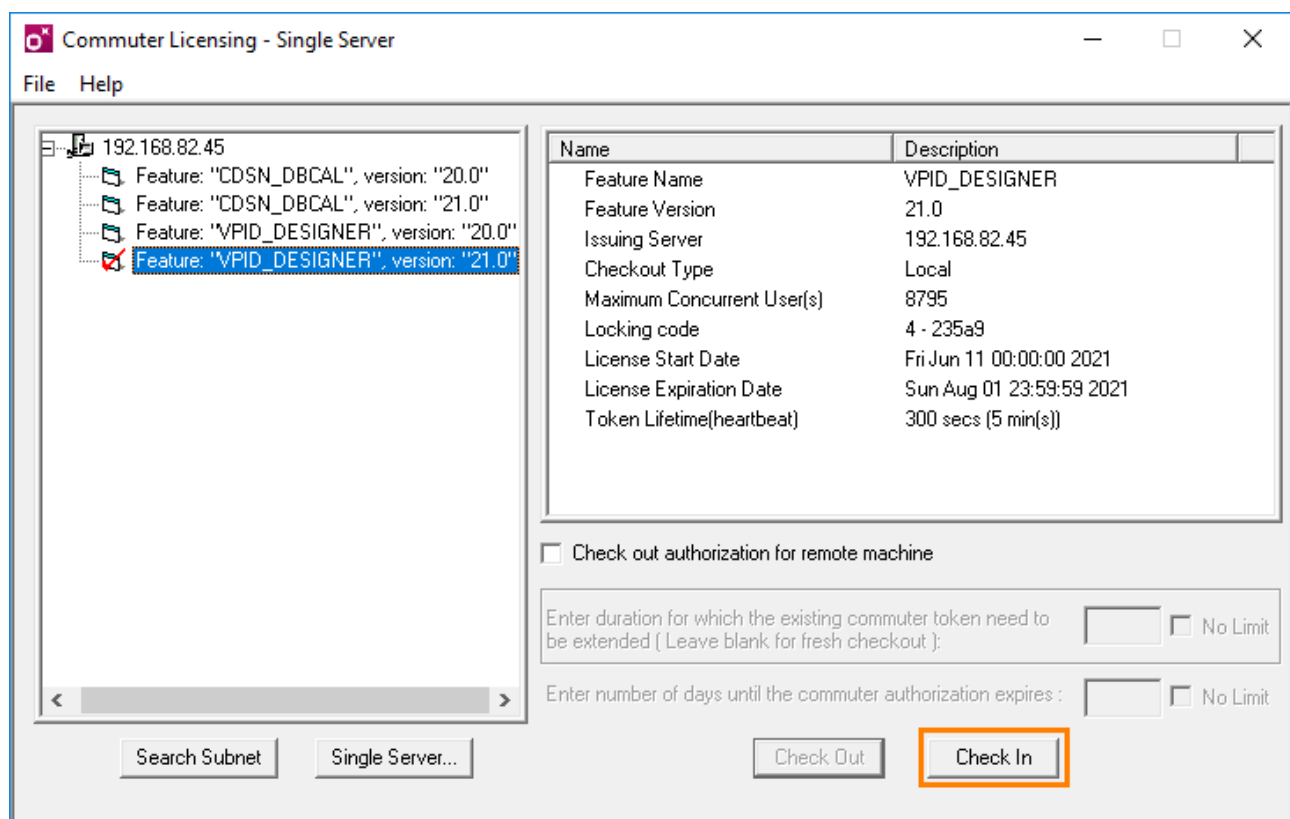

Image 32: Sentinel RMS Tool for License Check In

To check in licenses prior to the end of the defined check out time period, you need the same tool "WCommute", just as for the check-out of licenses. You must only mark the according module with a red check sign, and then click on the button "Check In". The check sign in the list is deleted, and this license will be released from your computer. This license is again available for the server (see illustration 32).

License Check Out for Remote Computers

If the client computer does not have direct access to the NLM server, it may be checked out by accessing the needed licenses of the NLM server from any computer in the network.

The computer that checks out licenses for a remote computer must possess network access to the NLM server in any case, and furthermore, the NLM Client Tool must be installed on its system.

The following steps must be performed to check out licenses for a remote computer:

The tool "WRCommute" must be run from the directory "Start-up Menu / Programs / ITandFactory / Remote Commuter Licensing" on the remote computer.

The tool has two tasks: Generation of an ID key for the computer, from which licenses are activated, and the activation of the license code, which was checked out based on the computer ID via the agent computer of a NLM server.

The computer ID (locking code) must be stored in a file on the remote computer in any case, and this file must be sent to the agent computer.
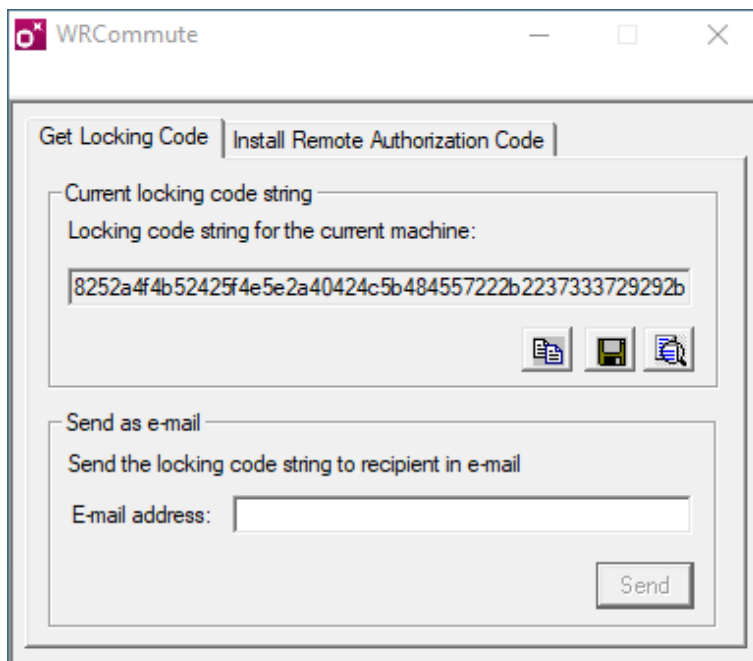

Image 33: Sentinel RMS Tool "WRCommute" to Generate Computer ID

	Button to copy the computer ID to the clipboard.
	Button to insert the computer ID to a file.

Button to display the computer ID to a separate dialog box.

The agent computer receives the file with the computer ID of the remote computer, and runs the tool "WCommute", from which licenses are checked in and out. As the licenses are checked out for another computer, one must take care that the switch "Check out authorization for remote machine" is turned on. This means that this license is checked out for a remote computer.

⚐ Caution: The licenses for a remote computer cannot be checked-in prior to the expiration of the defined Check out time period. After the end of the defined check out time period, these licenses are automatically activated on the license server again.
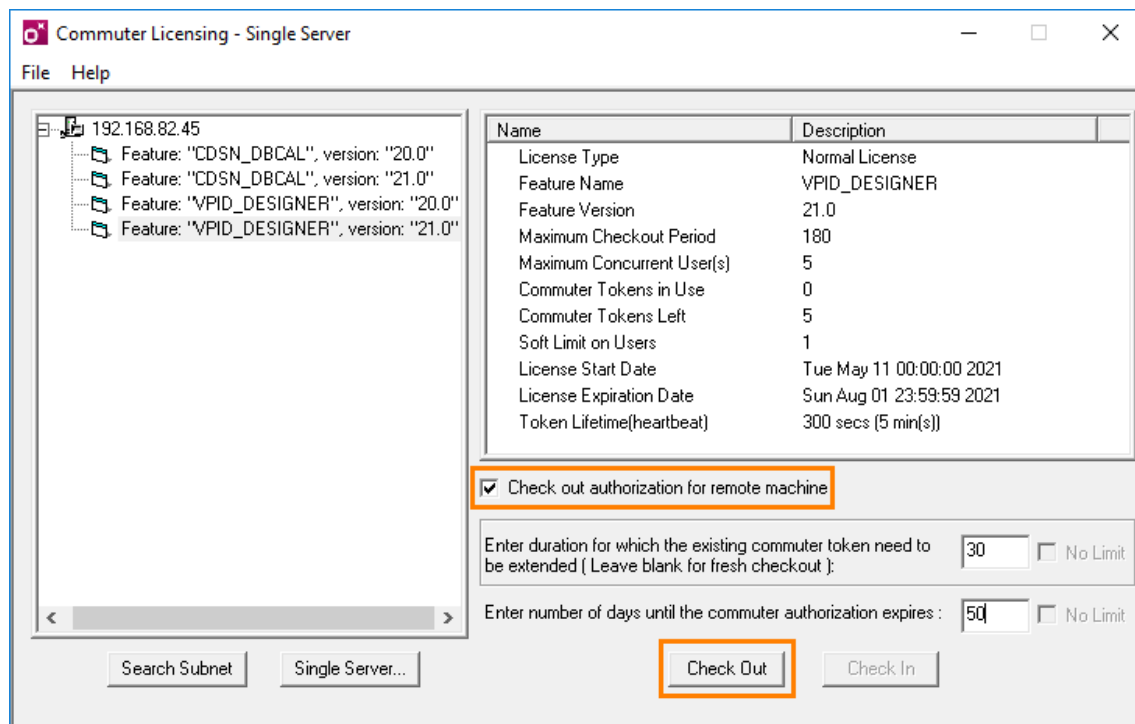

Image 34: License Check Out for a Remote Computer

Now if you click the button "Check Out", a dialog box opens, in which the file name including the ID of the remote computer is entered (see illustration 35).

Upon clicking the button "OK", a new dialog box opens, in which the name of the file may be entered, in which the license code should be copied (see illustration 36).

This procedure must be performed for all requested licenses, whereby one may/should store all licenses of a file in order to enable the activation of licenses in one step from the remote computer.

The licenses cannot be saved directly from the given dialog box to a file; they can only be saved to a file from a clipboard.

If during check out of the second license, the user indicates the file of the first process, this file will then be overwritten.
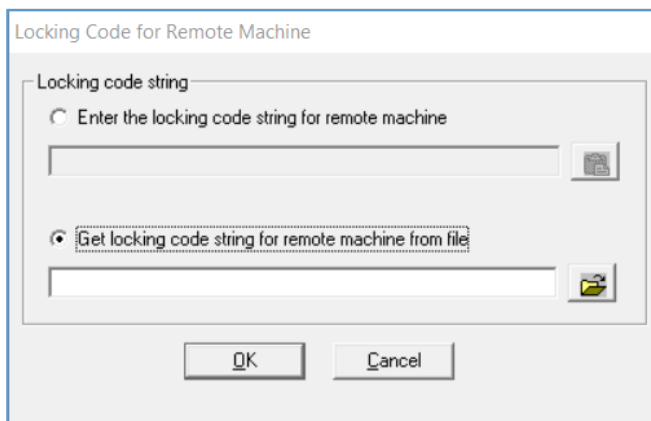
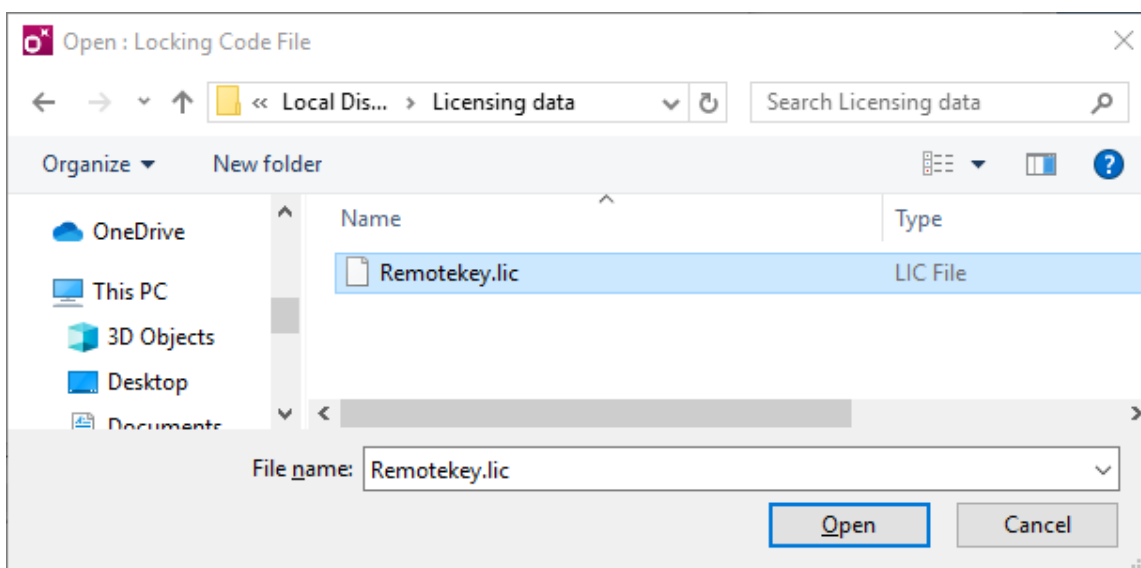**Image 35: Entry of ID (Locking Code) of Remote Computer**

Image 36: Entry of File Name for the License Code

If the remote computer has received the file with the requested licenses from the agent computer, the tool "WRCommute" may be run on the remote computer and the tab "Install Remote Authorization Code" may be activated. You can now enter the file name including the license codes in the field "Remote authorization file" and accept by clicking the button "Install" (see illustration 37). The licenses will be installed on the system and be ready for operation.
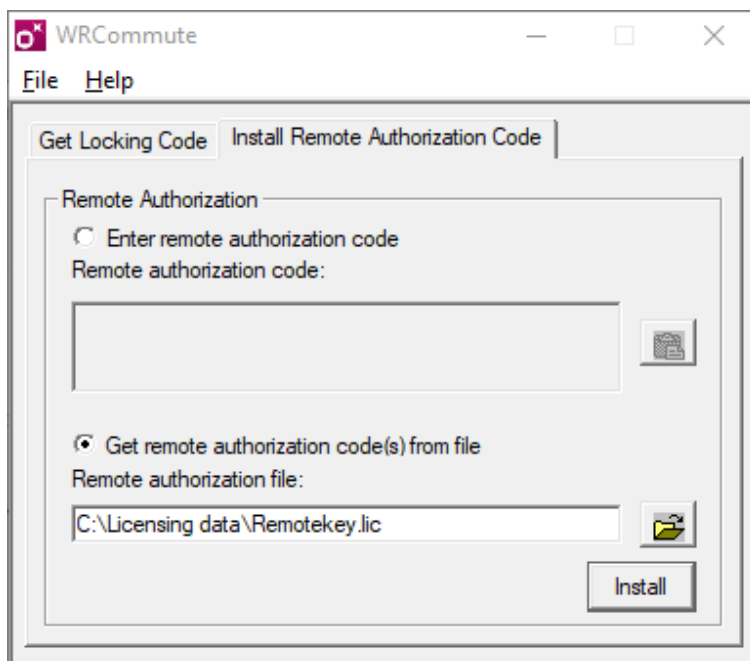
Image 37: Installation of Checked Out Licenses to the Remote Computer

Extending Remote Check Out Days

The duration of a remote checked out license can be extended before its expiration. Follow the steps given below:

I.   Run WCommute and select the commuter authorization whose duration needs to be extended.

II. Specify extension days in Enter duration for which the existing commuter token needs to be extended. This field needs to be ignored if a fresh remote authorization is being checked out.

✆ **Caution:** If values are specified for both the remote commuter extension days and commuter days (as shown in the diagram below), the former supersedes the latter.
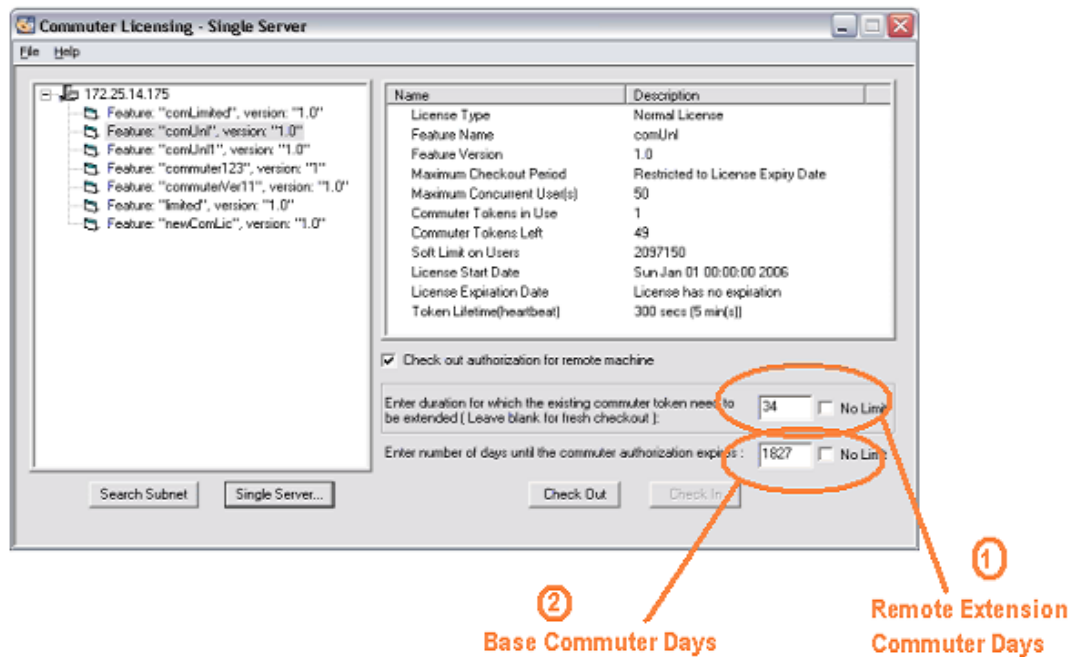
Image 38: Extending Remote Check Out Days