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1. About the License Server

The *MotorXP-PM/AFM License Server* is designed to work with *floating licenses* without being tied to the physical addresses of computers. Purchasing one server license for n workstations allows you to work from any computer in the corporate network that has access to the license server. The number n is determined by the number of licenses purchased. At any given time, no more than n computers can be connected to the license server. If the maximum number of clients (computers) is connected to the license server, new clients will not be able to connect until at least one license becomes available on the server.

Multiple *MotorXP-PM/AFM* client applications can connect to the license server from the same computer. In this case, only one license will be used on the server, regardless of how many *MotorXP-PM/AFM* client applications are connected to the license server from the same computer (host).

Figure 1 shows the main window of the *License Server* and the *Network License Manager*.

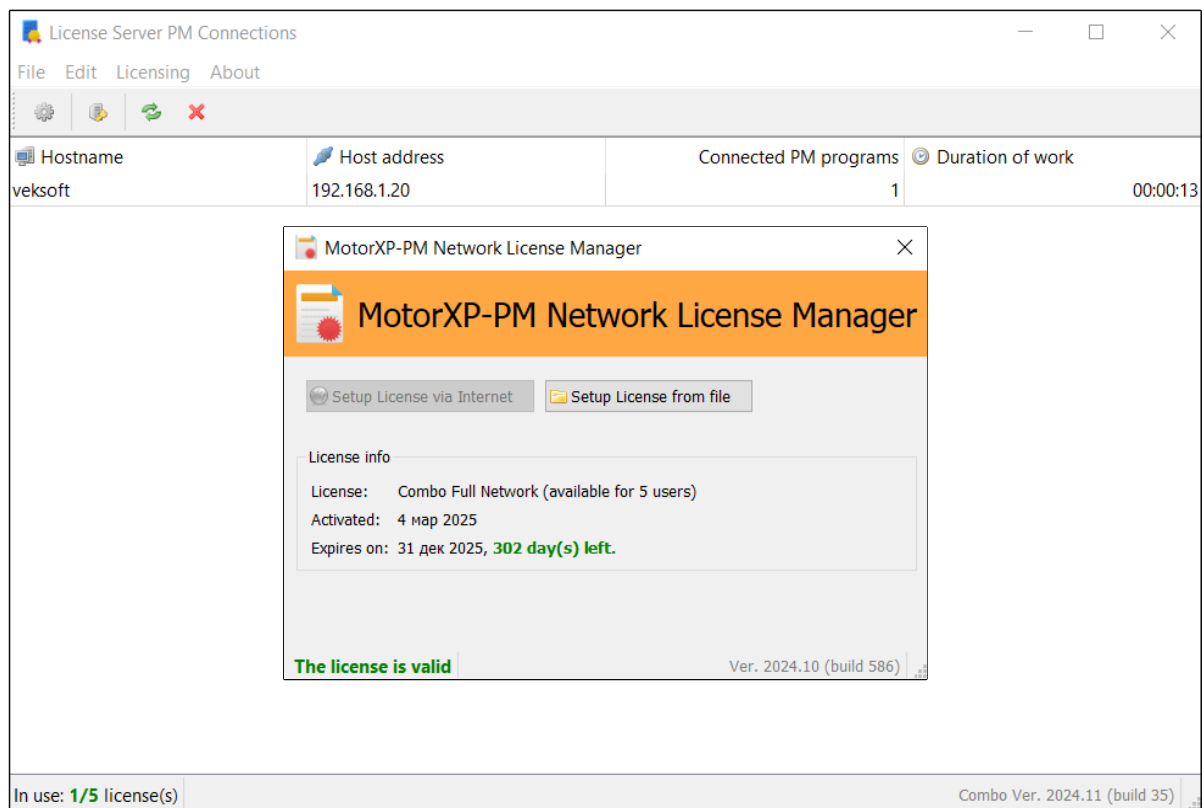


Figure 1. Main window of the License Server PM/AFM and the MotorXP-PM/AFM Network License Manager



Advantages of floating licenses:

1. Flexibility: Licenses can be used by different users at different times.
2. Cost savings: There is no need to purchase a license for each device; it is sufficient to have licenses for the maximum number of simultaneously working users.
3. Centralized management: The administrator can manage connected clients through the license server.

Disadvantages of floating licenses:

1. Dependency on the server: If the license server is unavailable, users will not be able to access the full functionality of the *MotorXP-PM/AFM* software.
2. Limitation on simultaneous use: If all licenses are in use, new users will not be able to connect to the server.

It is important to plan the number of licenses according to your organization's needs.



The application interfaces shown in the figures in the User Guide may differ slightly from the current user interface design of the MotorXP-PM/AFM applications and the License Server.

Thank you for using MotorXP, License Server and reading this manual.



2. Downloading and Installing the License Server

To install the *License Server PM/AFM*, you need to download the *MotorXP-PM/AFM* application installer. The installer can be downloaded from the official website <https://motorxp.com/downloads/>. After downloading the installer, you need to run it and perform the installation. The license server executable file (*LicenseServer.exe*) is included in the basic installation. After installing the *MotorXP-PM/AFM* application, the license server executable file *LicenseServer.exe* is located in the `<installation_folder_path>/bin` folder (Figure 2). Additionally, there is a standalone installer available for setting up the *License Server PM/AFM*. Please contact us via email: info@motorxp.com.

Currently (March 2025), the *MotorXP-PM/AFM* application can be installed by extracting the archive.

libssl-1_1-x64.dll	26.04.2022 20:18
LicenseHelperD.pdb	14.10.2024 21:52
LicenseManager.conf	12.12.2023 17:58
LicenseManager.exe	29.10.2024 20:41
LicenseManager.ilc	29.10.2024 20:41
LicenseManager.pdb	29.10.2024 20:41
LicenseServer.exe	13.11.2024 20:35
LicenseServer.pdb	29.10.2024 20:01
MSBCTrD.dll	22.02.2025 11:50

Figure 2. *LicenseServer.exe* executable file



The License Server can be run on a dedicated computer or on a personal computer where the MotorXP -PM/AFM client application is planned to be used. It is also possible to run two separate license servers on the same computer to activate MotorXP-PM and MotorXP-AFM applications.



3. Starting and Activating the License Server

To obtain the server license file, you need to email: info@motorxp.com. The following information is required to generate the license: the *MAC* address of the computer on which the license server will be run, the required number of available licenses, the version of the *MotorXP (PM/AFM)* application, and the license type (*Matlab, Standalone, Combo*).

Below are the **steps to start and activate the License Server** for the *MotorXP-PM* client applications:

Step 1: Double-click the *LicenseServer.exe* executable file located in the *<installation folder path>/bin* folder (Figure 3.1).

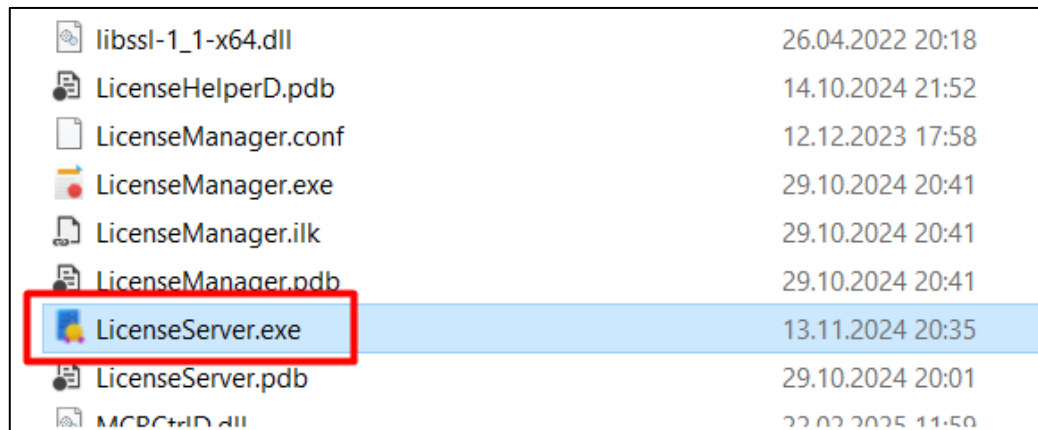


Figure 3.1. *LicenseServer.exe* executable file



After running the *LicenseServer.exe* executable file, a warning from Windows Security and Windows Defender Firewall will appear. You need to read the information and click the "Allow access" button (Figure 3.2).

The main application window will also appear, prompting you to activate the server license (Figure 3.3). The license can be activated immediately after starting the server (click **'Yes'** in the dialog box) or later through the menu (select *Licensing > Network License Manager*). By default, the license server for the *PM* version listens on port *43101*. If you encounter the error message **'Unable to start the server'**, refer to [Chapter 4](#).

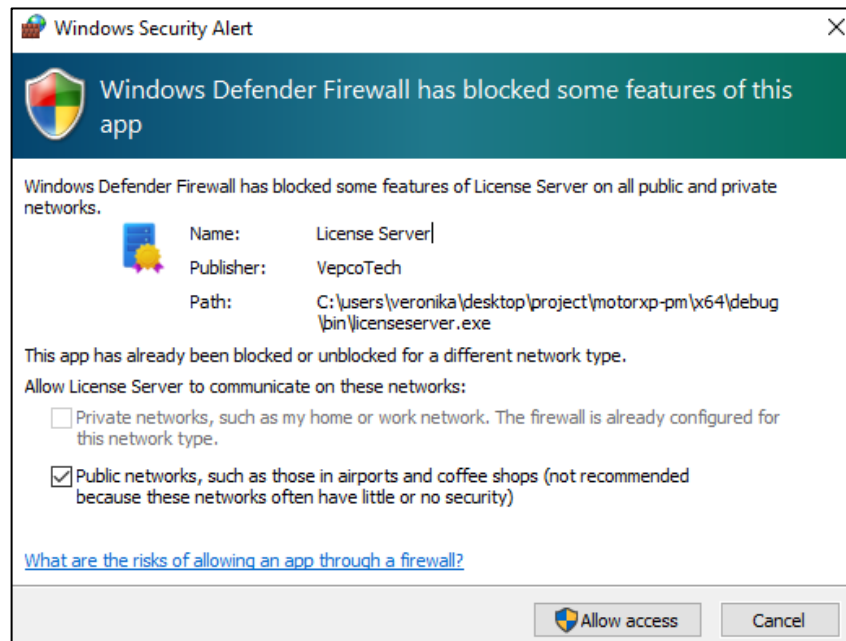


Figure 3.2. Windows Security Alert

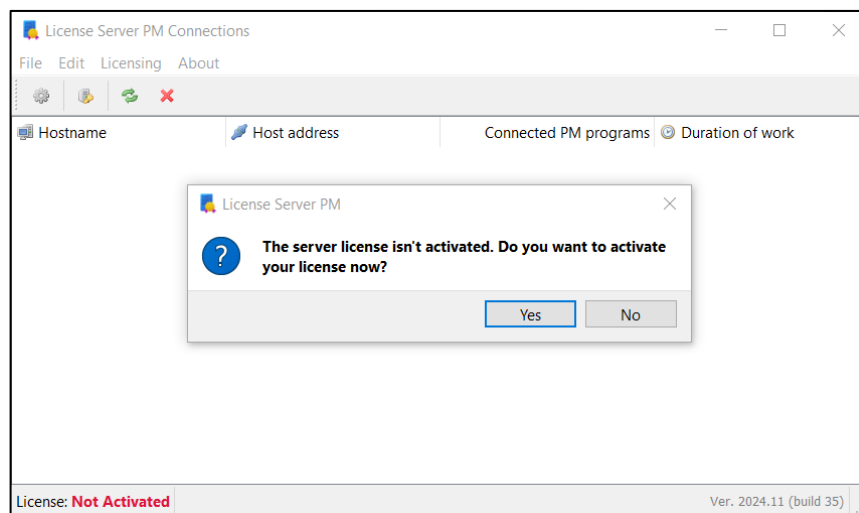


Figure 3.3. Main window of the LicenseServer.exe application

Step 2: Click the **'Yes'** button in the dialog box (Figure 3.3) or select the *Licensing* option in the menu bar. After performing this action, the *MotorXP-PM Network License Manager* will open (Figure 3.4).



Currently (March 2025), the license server can only be activated using a license file; online activation is not available. The license manager window displays the licensing status.

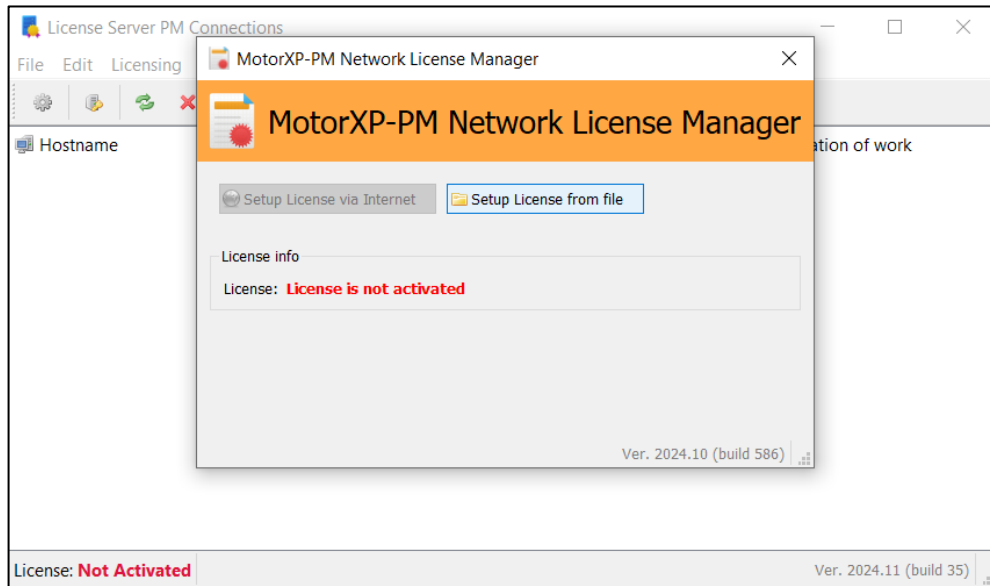


Figure 3.4. Network License Manage Window

Step 3: Click the '**Setup License from file**' button, and select the server license file with the *.mxp extension using the file explorer. The license manager window will display the current licensing status (Figure 3.5). To apply the changes, close the Network License Manager window.

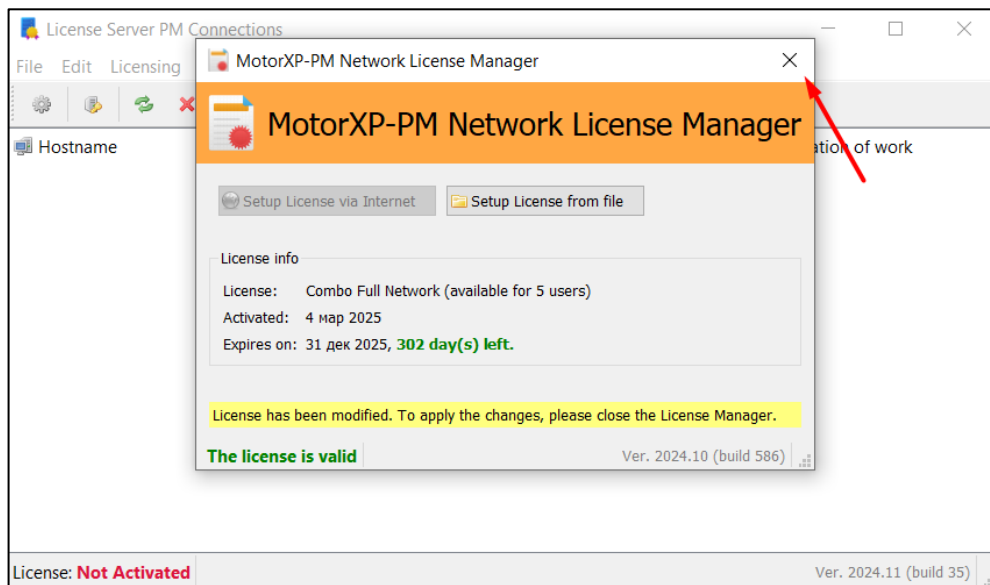


Figure 3.5. Network License Manage Window After Loading the License File

Step 4: To activate the last loaded server license, you also need to restart the *License Server*. After closing the license manager, a dialog box will appear prompting you to restart the *License Server* (Figure 3.6).



Restarting the license server will disconnect all connected clients.

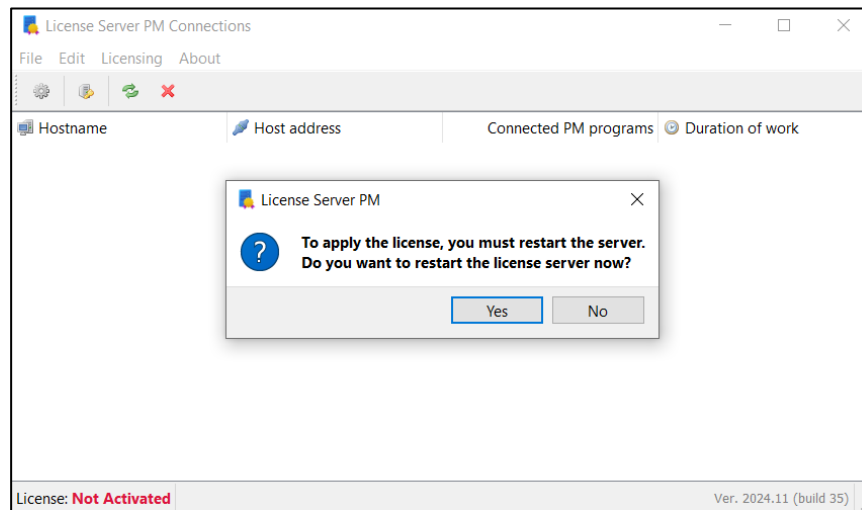


Figure 3.6. Dialog Box "Restart Server to Activate License"

Step 5: After restarting the license server, the main application window will appear. The status bar will show the current licensing status and the license type (e.g., *Combo*). In Figure 3.7, the server license is designed for simultaneous connection of 5 computers.

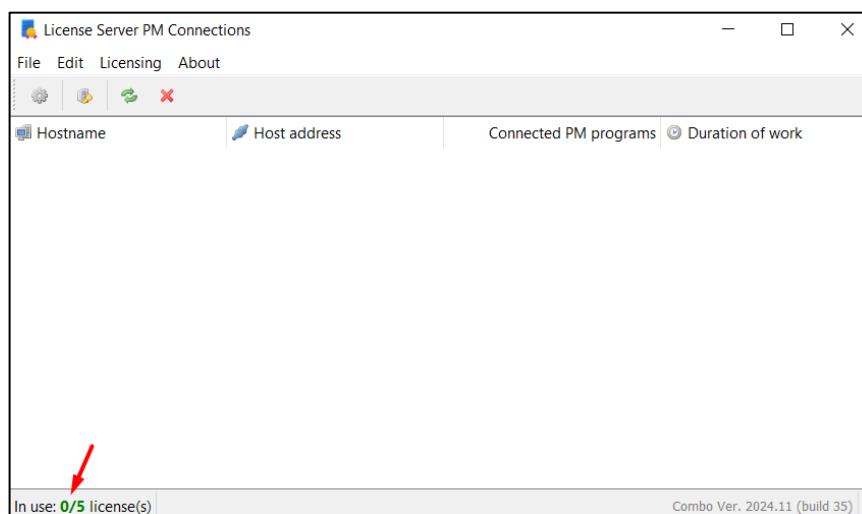


Figure 3.7. Main Window of the LicenseServer.exe Application

Step 6: The license server is **activated** and ready to accept connections. You can now close the main license server window (click the X in the upper right corner of the window), and the server will continue to run in the background, with the main window minimized to the system tray.

The license server icon will appear in the notification area (system tray). To display the context menu with actions, right-click the license server icon.



You can show/hide the main application window by double-clicking the license server icon in the system tray (Figure 3.8).

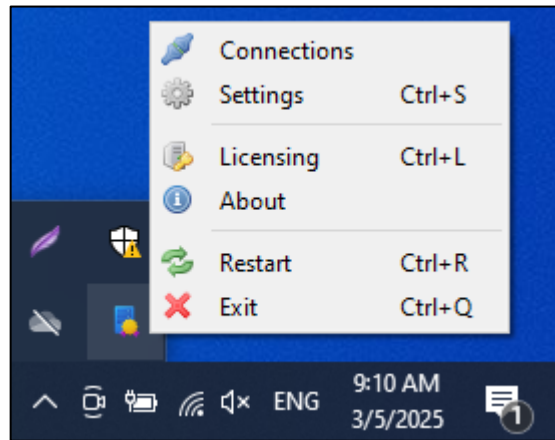


Figure 3.8. LicenseServer.exe Icon in the Notification Area



4. Configuring the License Server

To enable interaction between the *MotorXP-PM/AFM* client application and the *License Server*, configuration is required. Typically, running the *LicenseServer* executable file is sufficient for normal operation of the license server, and no additional server configuration is required. Server configuration is necessary if the default port is already in use by another program (application). For the license server to work and process client connections, a free port is required.



The default port for the PM version of the license server is 43101, and for the AFM version, it is 43102.

If the port is already occupied by another application, an error message will appear after starting the license server or when changing the port in the settings (Figure 4.1).

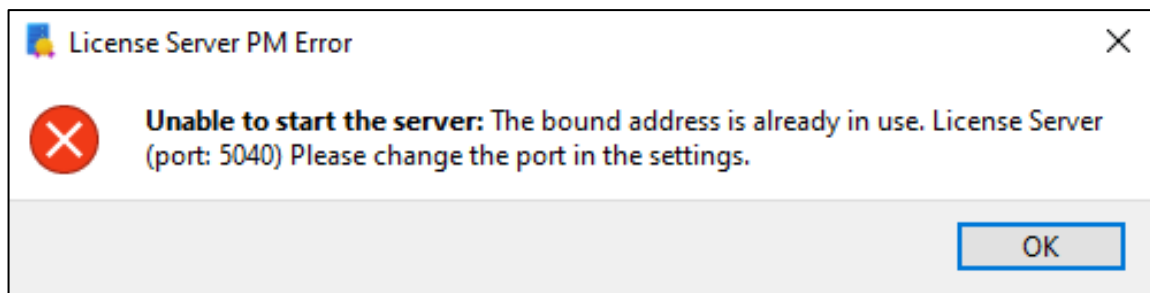


Figure 4.1. Error message when trying to occupy a port

To resolve this error, you need to configure the server. If you need to initially start and activate the *License Server*, refer to [Chapter 3](#).

Let's consider the **steps for configuring the License Server** for client applications and issuing floating licenses after starting and encountering port issues:

Step 1: Open the server settings window through the tray (Figure 4.2a), the menu bar (*Edit > Settings*), or the toolbar (Figure 4.2b).

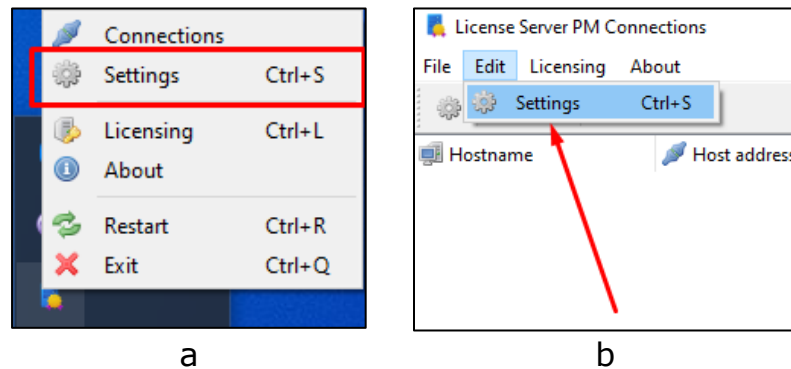


Figure 4.2. Opening server settings: a – in the tray; b – in the main window

Step 2: Specify the value of a free port for listening. The port number must be in the range from 1024 to 65535 (Figure 4.3).

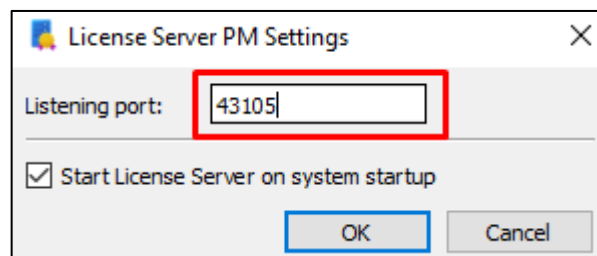


Figure 4.3. Settings dialog box

Step 3: Click the '**OK**' button in the server settings dialog box.

Step 4: If the license server successfully occupies the specified port, a notification will appear (if notifications are enabled, Figure 4.4). If the server fails to occupy the port for listening, an error message will be displayed (Figure 4.1), so you should repeat steps 1-3. The listening port number is displayed in the tooltip when hovering over the application icon in the notification area.

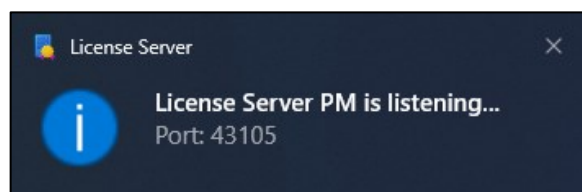


Figure 4.4. Notification about port listening

Step 5: The process of activating the server license is described in [Chapter 3](#). Server license activation is required during the initial server starts or when the license expires.

The launch, settings, and activation of the *License Server* are **complete**.



5. Configuring the MotorXP-PM/AFM Client Application

Configuring the *MotorXP-PM* client application is a mandatory step for working with a floating license. Let's consider the **steps for configuring the *MotorXP-PM* client application** to connect to the *License Server*:

Step 1: Launch the *MotorXP-PM* application and find the *Licensing* > *License Manager* option in the menu bar (Figure 5.1).

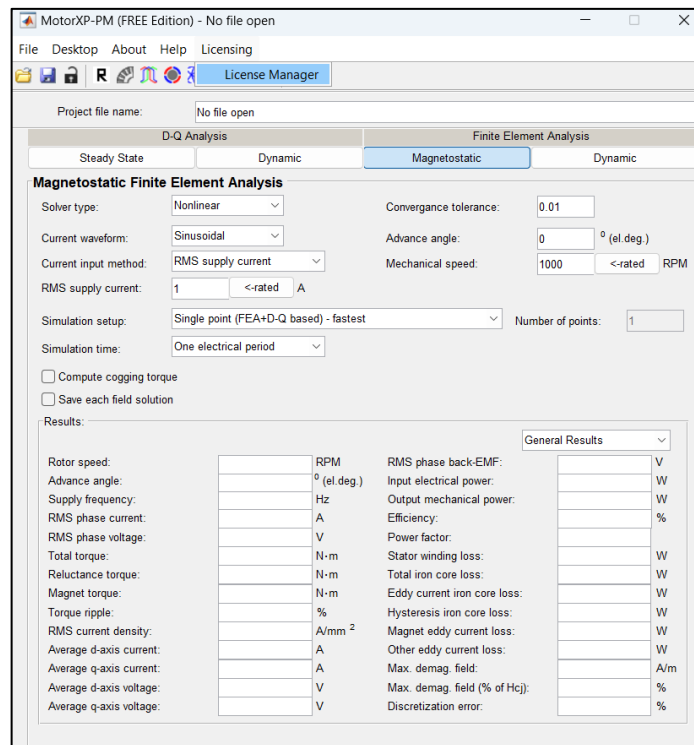


Figure 5.1. Main window of the MotorXP-PM application

Step 2: Click on the *License Manager* option. In the opened license manager window, select the '**Server license**' option if it is not already set (Figure 5.2).



The license manager window displays information about the license type and the client host. In Figure 5.2, you can see that there is no connection to the license server (connection status – *Offline*).

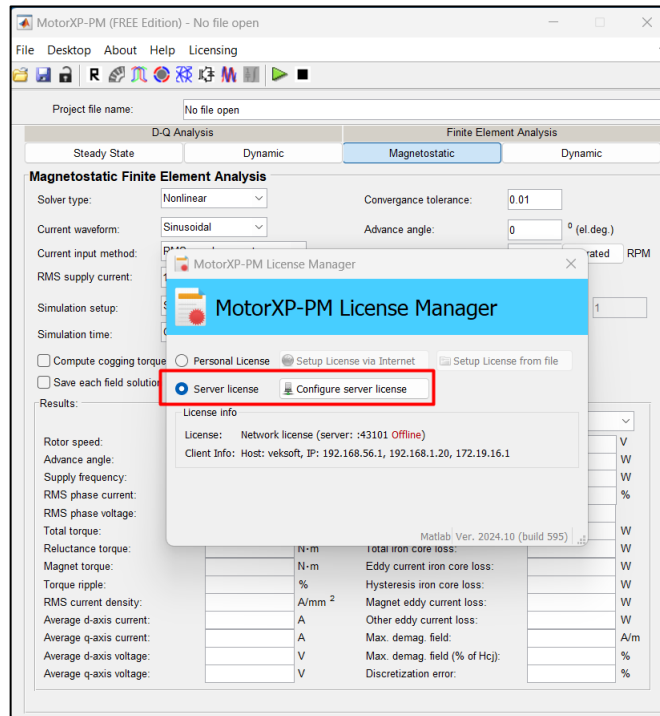


Figure 5.2. MotorXP-PM License Manager Window

Step 3: Click the '**Configure server license**' button. In the configuration window, fill in the '**Address**' field by specifying the *IP* address of the computer where the license server is running or the *DNS* name. Also, specify the port number used by the *License Server* (Figure 5.3).

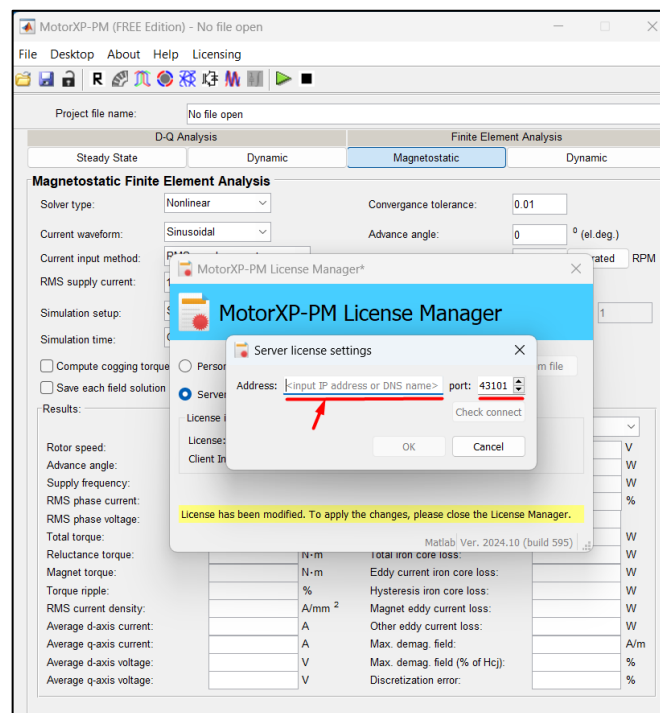
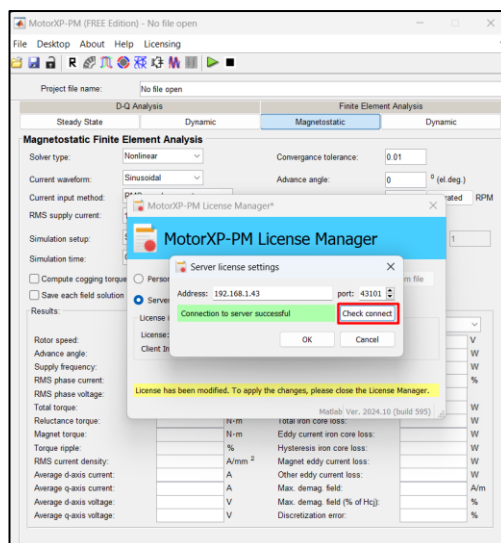


Figure 5.3. Configuring the connection to the license server

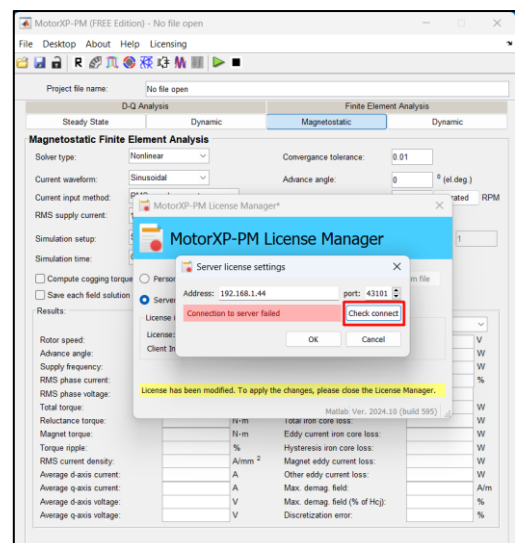


Step 4: Check the ability to connect to the license server by clicking the '**Check connect**' button. If successful, the message **Connection to server successful** will be displayed (Figure 5.4a), and if unsuccessful, the message **Connection to server failed** will be displayed (Figure 5.4b). If the connection check fails, perform the following actions:

- ensure that the specified *IP* address, *DNS* name, and listening port number are correct;
- make sure that the license server is running. At this stage, it does not matter whether the license is activated on the server or not;
- check the status of the license server in the tray (see [Chapter 7](#)): normal mode (🟢), error state (🔴), action required (🟡). It is possible that the license server failed to occupy the port, and its value needs to be changed in the settings (see [Chapter 4](#));
- check the visibility of the license server in the corporate network by running the `ping <license server IP address>/<DNS name>` command in the command line;
- configure the **firewall**. On the client computer, you need to allow outgoing network traffic. On the server computer, you need to allow incoming network traffic on the listening port (by default, for the PM version – 43101, for AFM – 43102) (see [Chapter 9](#)).



a



b

Figure 5.4. License server connection status: a – success; b – failure



Step 5: Click the '**OK**' button in the settings dialog box and close the License Manager Window to apply the changes (click the X in the upper right corner of the license manager window).

Step 6: To connect to the *License Server* and activate the full functionality of the *MotorXP-PM* client application, you need to load the file (Figure 5.5a) or restart the *MotorXP-PM* application (Figure 5.5b).

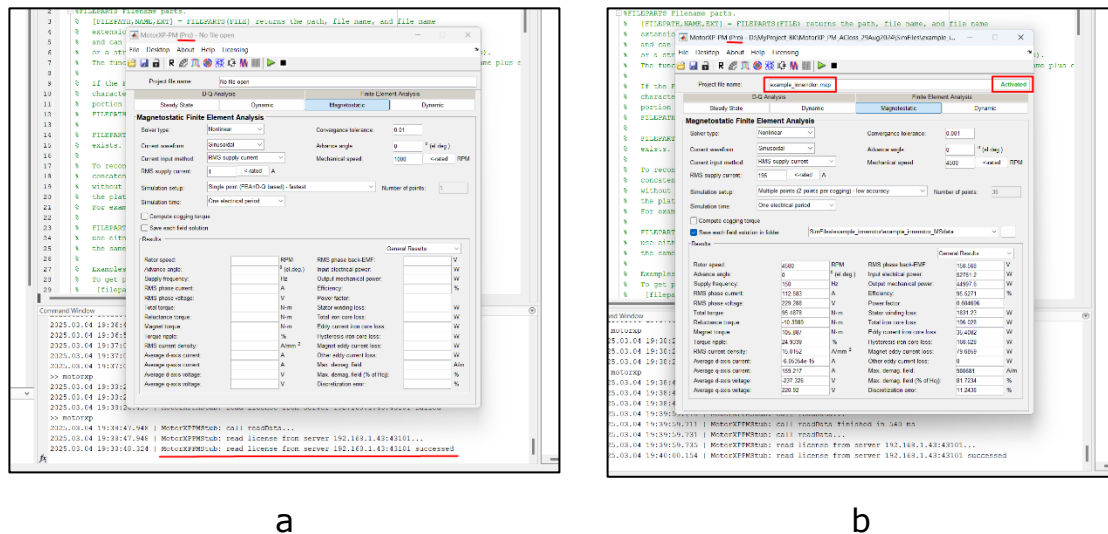


Figure 5.5. Launching the MotorXP-PM application with an activated license: a – launching the application without loading a file; b – activation view with a loaded file

If the connection to the license server is successful and the application is activated, the **FREE Edition** label in the title bar will be replaced with **Pro**.

Also, in the *Command Window* in the *Matlab* application window, the following entry will appear: *read license from server <IP address>:port **successful***. If the license activation fails, the following entry will appear in the *Command Window* in the *Matlab* application window: *read license from server <IP address>:port **failed***.



License activation failure may be due to the fact that there are no free licenses on the server at the time of the request, or the application version (PM, AFM) and license type (Matlab, Standalone, Combo) of the server and the client application do not match.



The *PM* version *License Server* can only issue licenses for *MotorXP-PM* client applications (the same approach applies to *AFM*).

A server with a *Combo* license type can issue licenses for client applications with *Matlab*, *Standalone*, and *Combo* license types. If the server license type is *Matlab*, the clients must also have the *Matlab* type (the same approach applies to *Standalone*).



The firewall may **filter** network traffic. On the client computer, you need to allow outgoing network traffic. On the server computer, you need to allow incoming network traffic on the listening port (by default, for the *PM* – 43101, for *AFM* – 43102) (see [Chapter 9](#)).

As a result of performing the steps presented in Chapters 3-5, the license server and the *MotorXP-PM/AFM* client application have been launched, activated, and configured. At this stage, the application setup is **complete**.



6. Stopping the License Server

To stop the *License Server*, you need to exit it using the **'Exit'** action located in the notification area, menu bar (*File > Exit*), or toolbar (Figure 6.1).

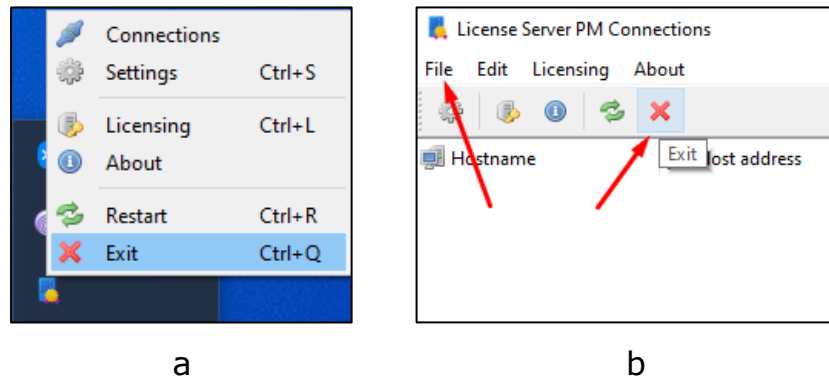


Figure 6.1. 'Exit' action: a – in the tray; b – in the menu bar and toolbar



When stopping the license server, all connections with connected MotorXP-PM/AFM client applications are terminated (Figure 6.2).

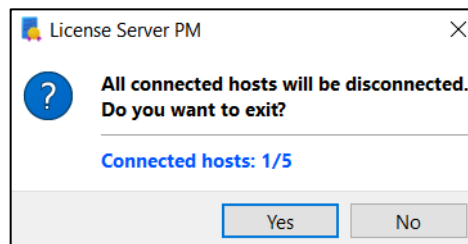


Figure 6.2. Warning about disconnecting clients

Also, make sure that the **'Start License Server on system startup'** option is not enabled in the server settings (Figure 6.3).

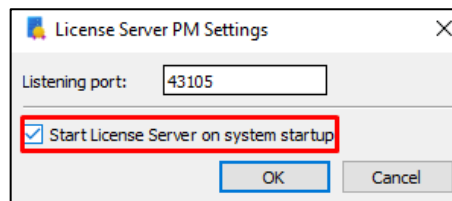


Figure 6.3. 'Start License Server on system startup' option in the server settings



If this option is enabled, the license server will automatically start when the computer on which the server is running is started/restarted.



7. Main Functionality and Features of the License Server

Let's consider the functionality of the license server and the main elements of the user interface.

Main application window

The license server mainly works in the background and displays the operating status in the tray and by sending notifications (Figure 7.1). You can show the minimized main application window in two ways:

1. *Double-click the left mouse button* on the license server icon in the tray (Figure 7.1a). The application icons in the notification area may be hidden, so you need to click the arrow to expand the grouped icons and find the license server icon.

2. Click the **'Connections'** action in the context menu in the tray. To open the context menu, right-click on the license server icon in the tray (Figure 7.1b).

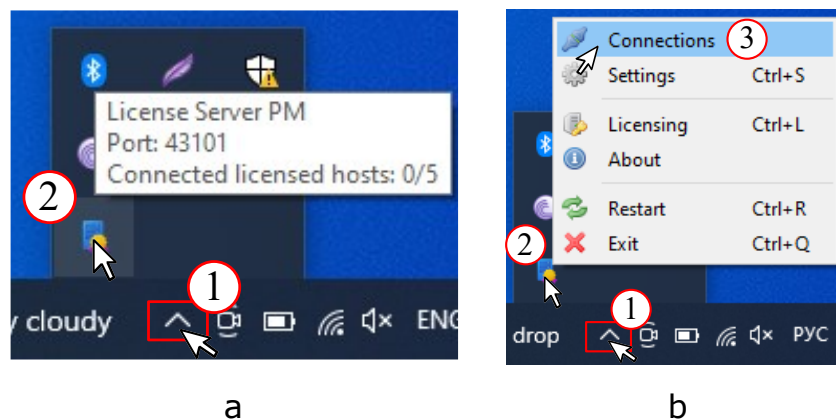


Figure 7.1. Working with the license server through the tray: a – double-click the left mouse button; b – context menu

The main application window has 5 elements:

Element 1. Title bar. The title bar indicates the version type of the license server – *PM* or *AFM* (Figure 7.2). If you click the X in the upper right corner of the window, the main application window will be minimized, and the server will continue to run in the background (minimized to the tray).

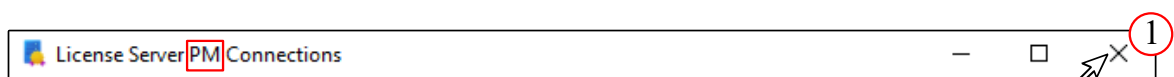


Figure 7.2. Title bar



Element 2. Menu bar. The menu contains the following standard items: *File, Edit, Licensing, Help* (Figure 7.3).



Figure 7.3. Menu bar

Menu items and actions:

File

- > Restart  (Restart the license server).
- > Exit  (Stop the license server and exit the application).

Edit

- > Settings  (License server settings dialog box).

Licensing

- > Network License Manager  (Server licensing).

Help

- > Manual (This is the user manual .
- > About (About the license server).

Element 3. Toolbar. The actions are the same as in the menu bar (Figure 7.4).



Figure 7.4. Toolbar

Element 4. Table with a list of connected hosts. The table is located in the center of the main application window.

Element 5. Status bar. The status bar on the left side indicates the server license status (*Not Activated*, *Expired*, *In use*) and on the right side shows the server license type (*Matlab*, *Standalone*, *Combo*) with the server version number (e.g., *Ver. 2024.11*) (Figure 7.5).

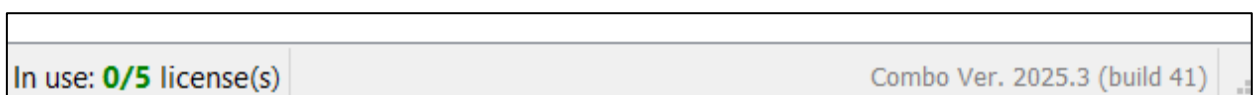


Figure 7.5. Status bar



License Server Settings

You can open the license server settings window in two ways:

1. In the main window, select the **'Settings'** action in the toolbar () or in the menu bar (*Edit > Settings*).
2. Click the **'Settings'** action in the context menu in the tray. To open the context menu, right-click on the license server icon in the tray.

In the license server settings, you can perform two actions (Figure 7.6):

1. Change the port number for listening **(1)**. The port number must be in the range from 1024 to 65535.
 2. Enable/disable the option to automatically start the server **(2)**.
- To save and apply the settings, click the **'OK'** button in the dialog box.

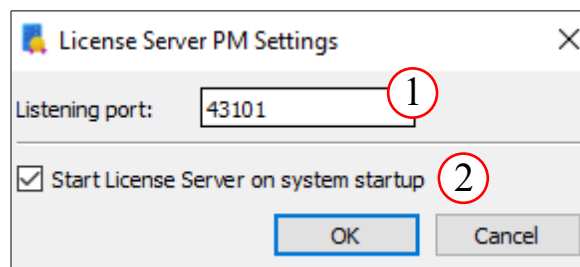
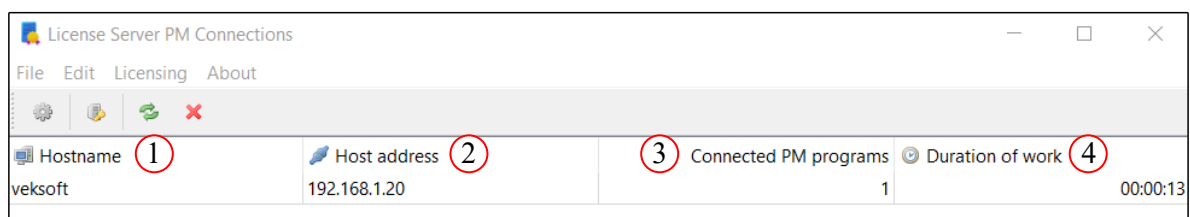


Figure 7.6. Settings dialog box: 1 – field for entering the port number;
2 – autostart option

Viewing the list of connected hosts

You can view the list of connected hosts in the main application window. Information about connected hosts is displayed in the table (Figure 7.7), which has 4 columns: hostname **(1)**, logical address (*IP* address) **(2)**, number of connected *MotorXP-PM/AFM* client programs **(3)**, duration of the host's connection to the license server for one session **(4)**.



Hostname	Host address	Connected PM programs	Duration of work
veksoft	192.168.1.20	1	00:00:13

Figure 7.7. Table with a list of connected hosts



Forcibly disconnecting a host (computer) from the license server

To disconnect a host from the license server, you need to:

Step 1: Open the main *License Server* application window.

Step 2: Find the entry in the table with the *IP* address/host name of the host to be disconnected.

Step 3: Right-click on the row (entry) to display the context menu and select the '**Disconnect host from license server**' action (Figure 7.8).

Alternative step 3: You can also click on the desired row in the table and then press the '**Delete**' key on the keyboard.

Answer the clarification questions with '**Yes**' (Figure 7.9).

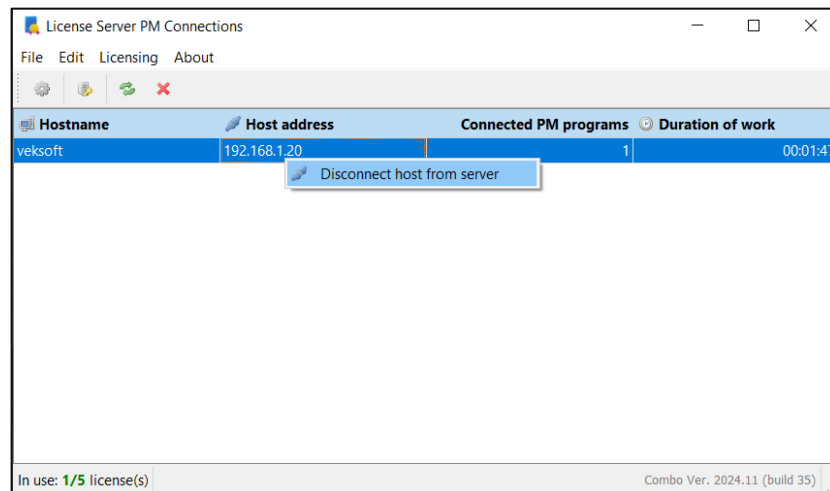


Figure 7.8. Context menu with the disconnect action

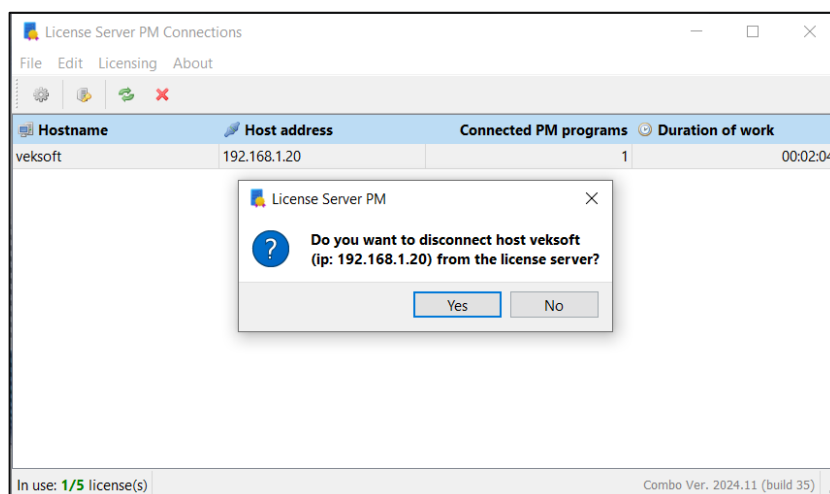


Figure 7.9. Question "Do you want to disconnect the host from the server?"



Activating the server license in the Network Manager

The network license manager is used to activate the server license using a file (*online activation is not available as of March 2025*) and to inform about the current license status. Detailed information about the Network License Manager is provided in [Chapter 3](#).

License Server operating states

The license server has three operating states:

State 1. Normal mode.

Description: Normal operating mode of the license server. The server can accept client connections.

Icon: Default server icon (Figure 7.10a).

State 2. Action required.

Description: This state occurs when the license file is changed through the network manager and the server license needs to be activated.

Icon: Server with a yellow circle (Figure 7.10b).

Actions to return to normal mode: Restart the license server through the tray (*right-click* on the license server icon in the tray to open the context menu, select the **'Restart'** action).

State 3. Error state.

Description: In the error state, the *License Server* cannot accept client connections.

Icon: Server with a red circle (Figure 7.10c).

Actions to return to normal mode: Change the port number in the license server settings (*right-click* on the license server icon in the tray to open the context menu, select the **'Settings'** action, see [Chapter 4](#)).



a



b



c

Figure 7.10. Application icons: a – normal mode; b – action required;
c – error state



License Server statuses

The server license can be in 4 statuses:

Status 1. Not activated (*Not Activated*).

Status 2. Activated (*Activated*).

Status 3. Less than a week left until the license expiration date (*Almost Expired*).

Status 4. The license has expired (*Expired*).

The current server license status is displayed in the *status bar* in the main application window and in the tooltip that appears when hovering over the application icon in the tray.



Starting one week before the license expiration date, the server will send daily notifications. This notification is sent once a day.

Notifications

Since the license server primarily runs in the background, the application includes a notification system.



To receive notifications from the license server, you need to enable notifications in the operating system's notification manager.

Table 1 lists the possible notifications from the *License Server*.

Table 1 – List of notifications from the License Server

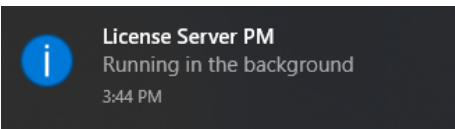
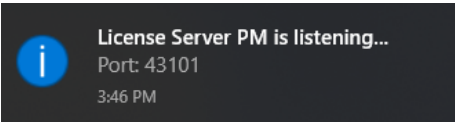
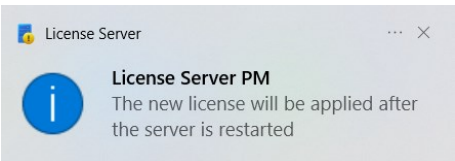
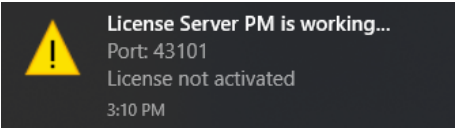
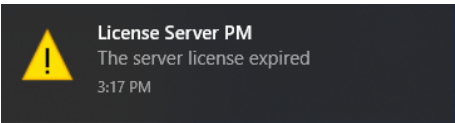
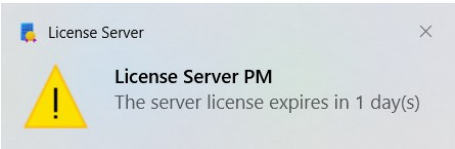
Nº	Name	Example	Category
1	Background Mode		Information
2	Port Listening		



Table 1 Continued.

Nº	Name	Example	Category
3	The new license will be applied after restart		Information
4	Server Running with Inactive License		Warning
5	License Expired		
6	Less than<X> Days Left Until License Expiration		



8. Example of Interaction Between the App and the Server

Let's look at an example of how multiple *MotorXP-PM* client applications running on different computers interact with a *License Server* on a local network. We'll assume that the *License Server* and client applications are already configured.

The **first host** (computer), *DESKTOP-UM4K514*, has the *IP* address 192.168.1.43 (in Figure 8 – 127.0.0.1). We'll start the *License Server* on this computer. We'll also launch **two** *MotorXP-PM* client applications on the same computer, both using the *Standalone* license type.

The **second host** (computer), *veksoft*, has the *IP* address 192.168.1.20. On this computer, we'll launch **three** *MotorXP-PM* client applications — two using the *Matlab* license type and one using the *Standalone* license type.

Figure 8 shows the main window of the *License Server*. As you can see, the license server has a total of 5 *MotorXP-PM* client applications connected, running on two hosts (labeled as **number 1** in the figure).

In the figure, the area labeled as **number 2** shows the number of licenses currently in use. In this case, 2 licenses are in use because client applications from two computers are connected to the license server.

The area labeled as **number 3** displays the type of server license and the server version. Here, the server license type is *Combo*, which means the server can work with client applications that have *Combo*, *Standalone*, or *Matlab* license types.

Hostname	Host address	Connected PM programs	Duration of work
veksoft	192.168.1.20	3	00:23:05
DESKTOP-UM4K514	127.0.0.1	2	00:07:10

In use: 2/5 license(s)

Combo Ver. 2025.3 (build 41)

Figure 8. Table with connected hosts



9. Troubleshooting Possible Issues

In progress...