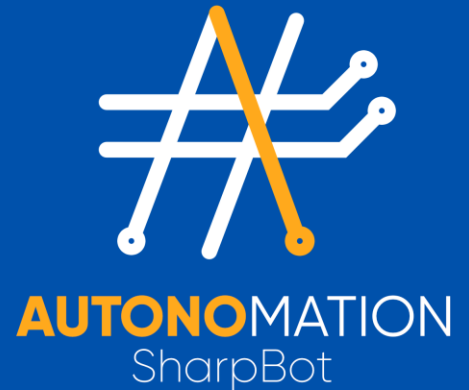


SharpBot Installation Manual



1 BEFORE WE START

This manual is designed to help you grasp the basics of SharpBot and the #bot platform. It won't cover every option and dialog in detail but will provide examples to illustrate common use cases.

You should have some experience with process control or data analytics to fully understand the functionality offered and to tailor your designs to your needs. You can refer to this manual at any time for guidance on using the software.

In summary, you'll be guided through installation, file management, and how to create and run a model, using examples that you can recreate and compare with those provided during installation.

2 REQUIREMENTS

The current version of SharpBot as of October of 2024 requires the conditions listed next:

2.1 Windows version.

- Windows 11 (versions 21H2 and later) – [Recommended version.](#)
- Windows 10 (versions 21H2, 22H2, and LTSC)
- Windows Server 2022 (Desktop)

Note: Azure OS support is not currently available.

2.2 Software Requirements

- .NET Framework 4.8.1
- C++ redistributable 2014
- C++ redistributable 2015–2022
- Microsoft Excel, any version from 2021 or higher

2.3 Hardware requirements

SharpBot's user interface requires a display resolution of at least 1920x1080 pixels at 100% scaling.

Minimum hardware requirements are mostly related to the operating system. SharpBot will run simple models if Windows can run.

For Windows 11, the recommended version for SharpBot, Microsoft has published the following hardware requirements that are sufficient for SharpBot as well.

- **Processor/CPU:** 1 GHz or faster with 2 or more cores, must be on the approved list
- **RAM:** 4 GB minimum.
- **Storage:** 64 GB or larger <<SharpBot requires 0.3 GB of free space>>
- **System Firmware:** UEFI with Secure Boot capability.
- **TPM:** Trusted Platform Module (TPM) version 2.0.
- **Graphics Card:** Compatible with DirectX 12 or later with WDDM 2.0 driver.

For intensive applications, CPU and RAM recommendations will be updated accordingly after assessing the load.

2.4 Optional features

2.4.1 OPC server

When SharpBot is connected to an industrial control system, we recommend that you run an OPC UA server directly on the SharpBot installation machine, if possible. An OPC DA server can also be used if OPC UA connection is not available; however, note that the OPC DA setup can take significant efforts.

Having a local OPC server improves communication management and eases the load balance of the control network, especially when there are many variables sent to different platforms for reports and historic data. If SharpBot will only communicate to established servers and losing communication and data from the application is not critical, purchase cost of a local OPC server can be reduced.

2.4.2 Python

You can include Python code into your projects using a block from the BasicMath Library. You will need to install the latest Python version with any packages that your code references. Your locally installed Python version must be able to run the code you intend to include in the model.

Also make sure to include your Python in Windows PATH.

3 INSTALLATION

Installing SharpBot is a straightforward process, you will need to be mindful of the following requirements for successful installation.

3.1 Starting the installation

After downloading SharpBot you will get access to a compressed folder containing two files (see Figure 1). Please uncompress the zip file and run **setup.exe**.

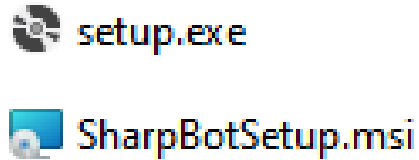


Figure 1: Installation files

The installer will first check software dependencies and attempt to install some of them, which includes some critical Visual C++ libraries needed for the correct execution of the software. Beware that some of the dependencies require rebooting the system for their installation.

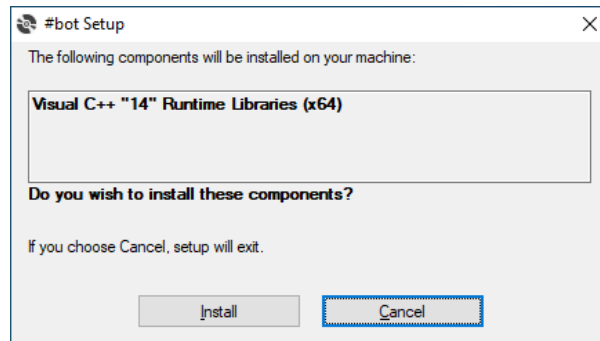


Figure 2: Example of missing dependencies

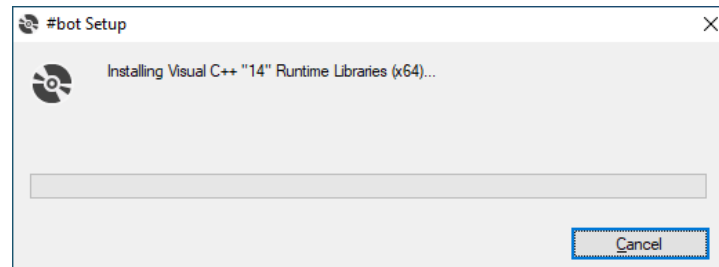


Figure 3: Dependencies installation

After this step you will be led to the main installer, the default options will result in a functional installation, any changes to these settings are not recommended.

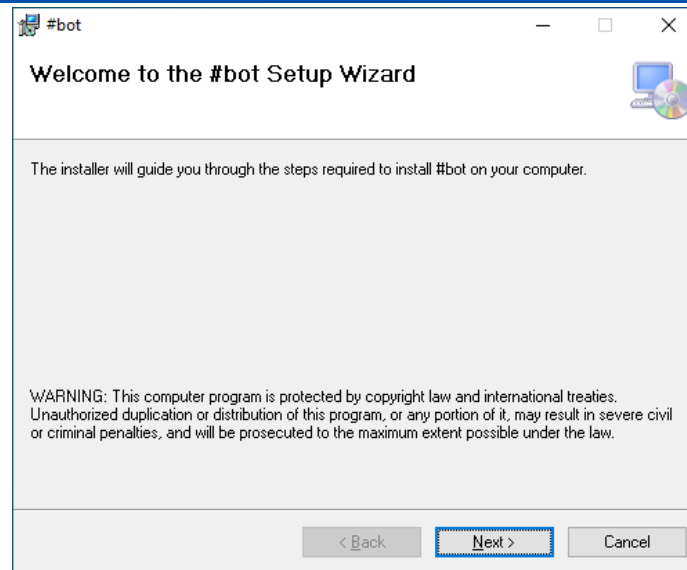


Figure 4: Welcome screen

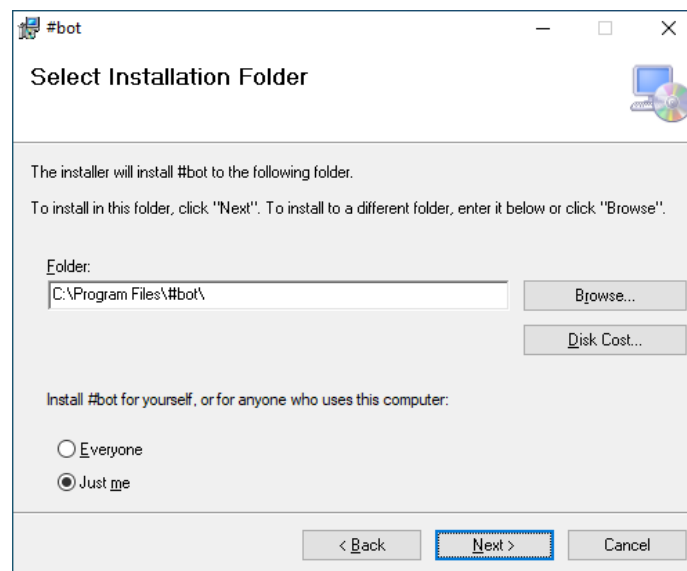


Figure 5: Folder selection

If you change the folder some of the example models might fail to load properly. Installing using the “Everyone” choice confers no advantage as the license is for a single user and using that option requires administrative user privileges that you may not have.

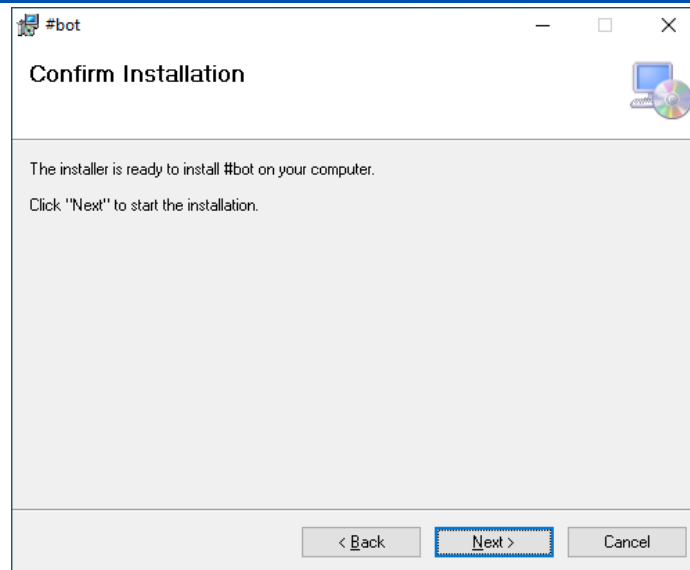


Figure 6: User Confirmation

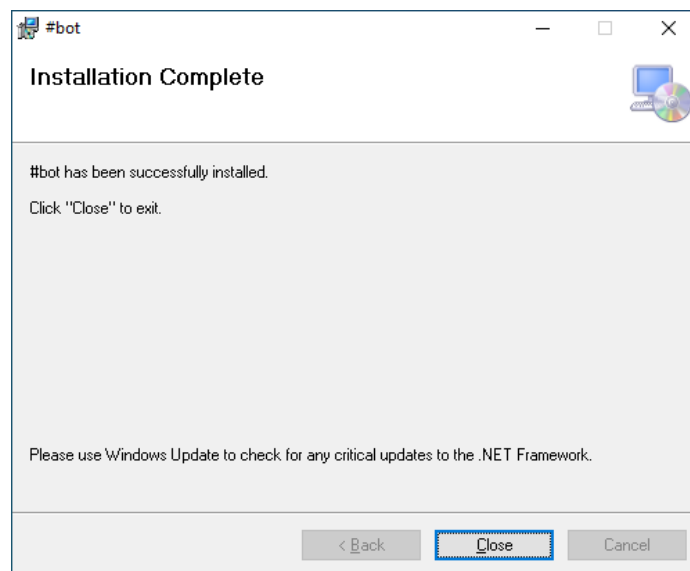


Figure 7: Installation Confirmation

It is important to make sure that the .NET version is up-to-date, especially in older versions of Windows and you follow any regular updates from Microsoft regarding patches for security.

3.2 Checking the installation

If SharpBot does not open or some Libraries are missing, you might have to manually add some files and folders.

To check the health of the installation run InstallationChecker.exe from the installation folder in `...Program Files\#bot` and send it to support@autonomationinc.com for further instructions.

Most problems derive from missing dependencies that can be downloaded and installed from Microsoft free of charge. Please check section 2.2 Software Requirements on page 2 for details.

3.3 License management.

You will need a license to use SharpBot. License management is done using third party tools and self-service for trial licenses. You will need access to the internet to generate the trial license; however, internet access is not mandatory for the SharpBot computer.

If the license manager cannot find a valid license at any time, you will be greeted by a warning message as shown in Figure 8.

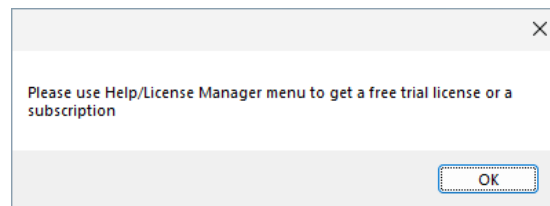


Figure 8: 'No license' message at startup

Follow the advice as shown in Figure 9.

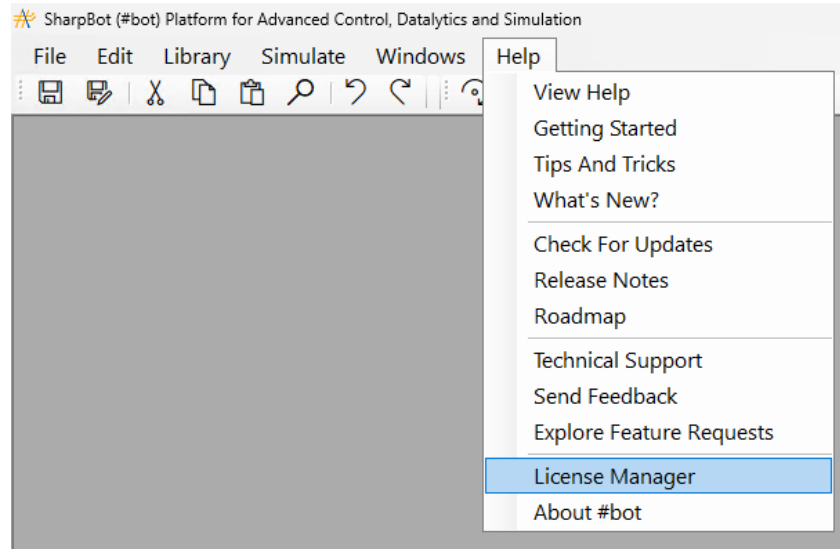


Figure 9: Opening License Manager

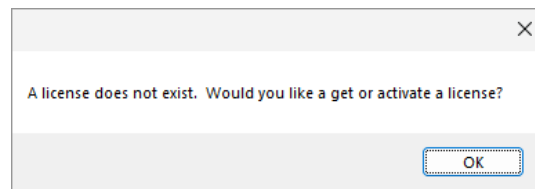


Figure 10: License Manager's greeting.

Finally, you will access the License Manager interface shown next.

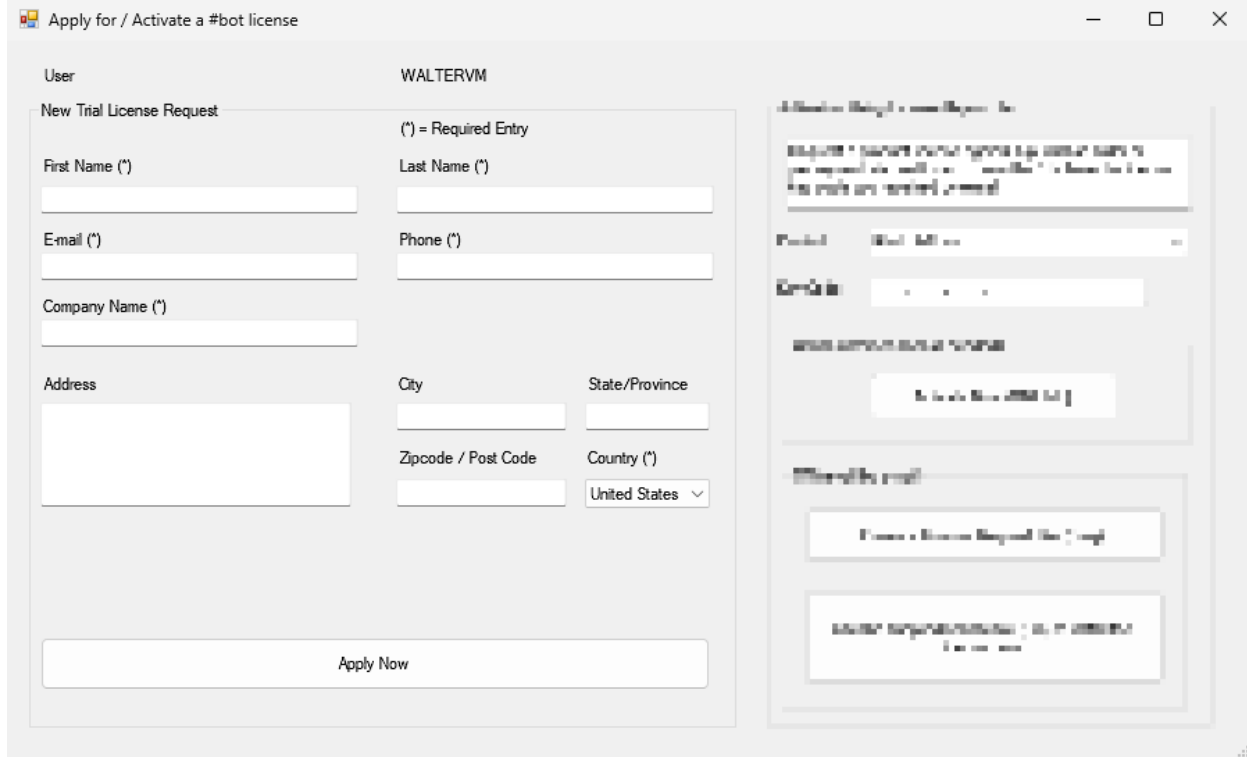


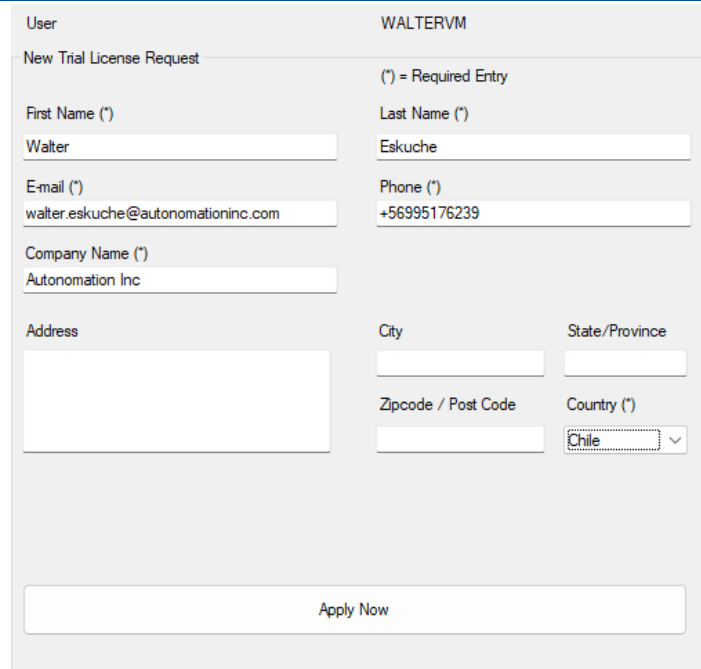
Figure 11: #bot platform's License Manager

3.3.1 Trial

Applying for a Trial license is a self-served process if you can access the internet from the SharpBot computer (even for a short activation window of <2 minutes). Fill out the free trial license form with the details of the user that will use #bot platform. Note that the license file will be installed for the user that launches the application the first time.

When you apply for a Trial license, a one-time password will be sent to your registered e-mail. This password is required to finish the trial application process. On successful activation of the license, you will get access to all the libraries and features of a standard SharpBot license without any limitations. The trial period is 30 days; therefore, we recommend you apply when you can get sufficient time for testing and trials.

The following instructions show more details on the licensing process.



User: WALTERVM

New Trial License Request

(*) = Required Entry

First Name (*)
Walter

Last Name (*)
Eskuche

E-mail (*)
walter.eskuche@autonomationinc.com

Phone (*)
+56995176239

Company Name (*)
Autonomation Inc

Address

City

State/Province

Zipcode / Post Code

Country (*)
Chile

Apply Now

Figure 12: Example trial request

When you press "Apply Now" a dialog will pop up for entering an authorization code. Please check your email (inbox or the spam folder) for an automated email within a few seconds after applying for a message like the one shown in Figure 13.

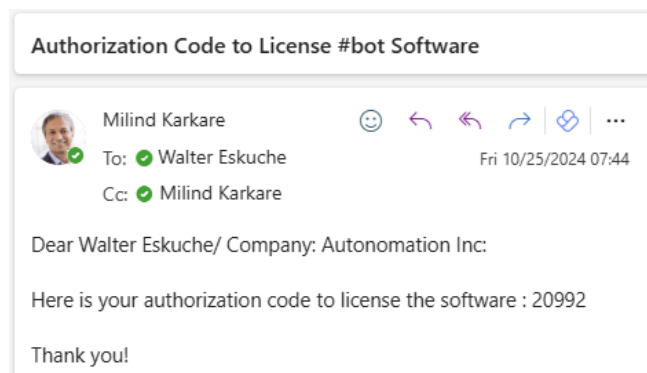


Figure 13: Trial License email

Enter this code in the dialog that appears on screen -- do not close this dialog until you have entered the code and pressed **OK** (see Figure 14). Then wait for a confirmation message (Figure 15). If you close the License Manager before confirmation the validation with the server will fail and you will need to start over the application process.

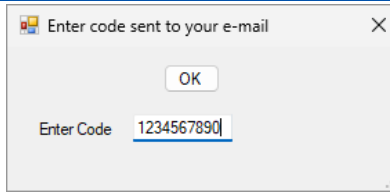


Figure 14: Enter code dialog

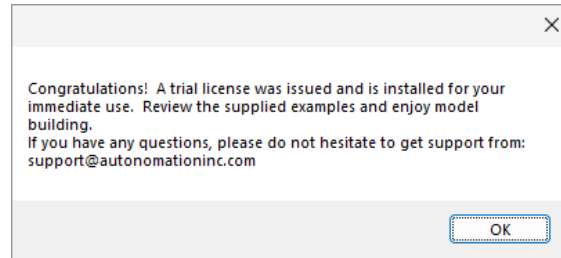


Figure 15: Successful activation message

In case your trial period has expired you will see a message shown in Figure 16, please proceed to purchase a subscription license to continue the use of SharpBot.

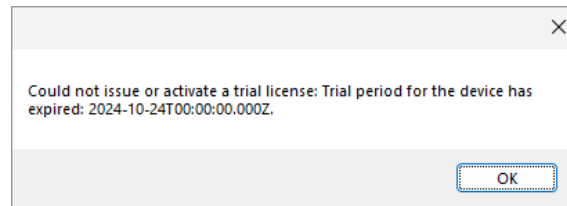


Figure 16: Unsuccessful activation after the trial period ended.

3.3.2 Subscription

In case you have already acquired a subscription license you will have received a 16-character license key code for the activation.

Please be mindful of the user that will activate the license, licenses are for a single user.

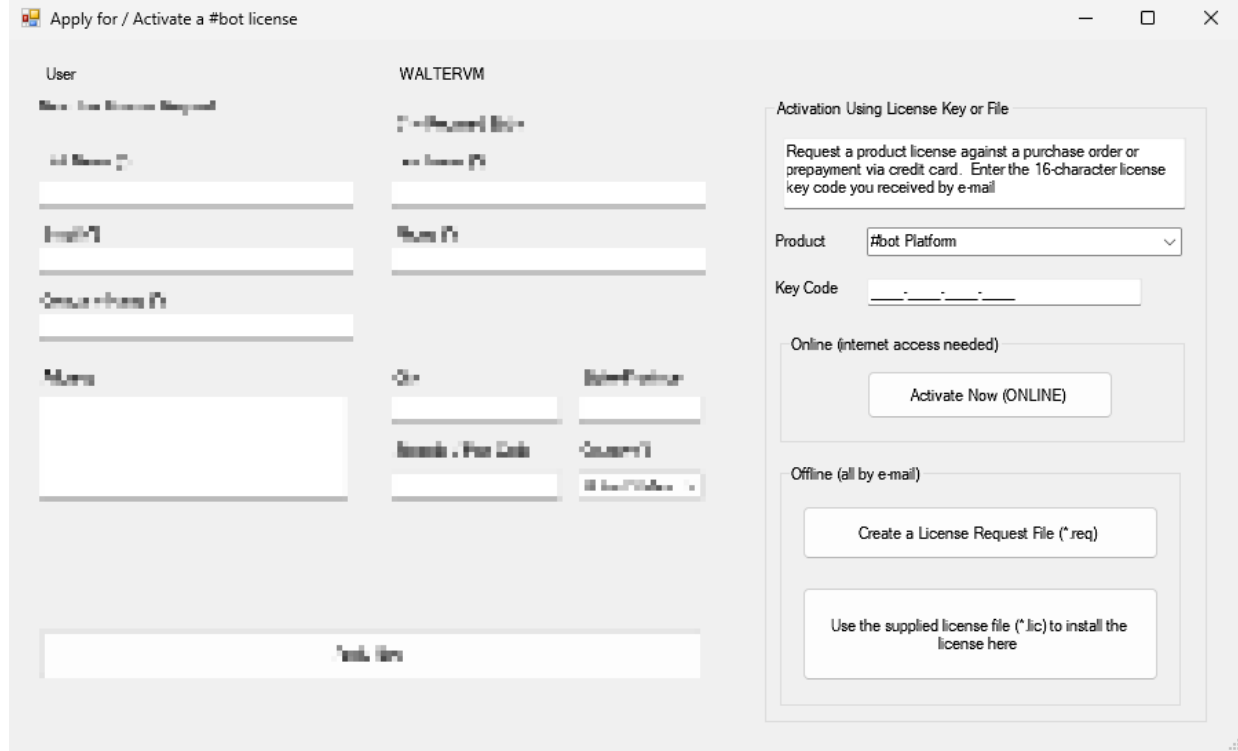


Figure 17: License Manager's key code side

In this case you will use the right part of the License Manager. Start by entering the key code in the corresponding text field. The next step depends on whether the computer has access to internet or not.

3.3.2.1 Online Activation

Internet enabled computers can use the first activation option provided, pressing the button **Activate Now (ONLINE)** sends your key code directly to the license server for validation and activates the license.

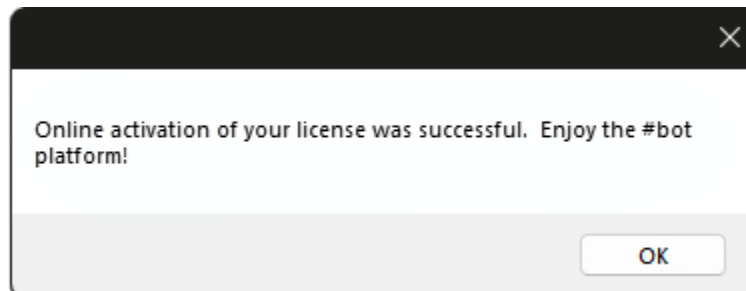


Figure 18: Online activation message.

3.3.2.2 Offline Activation

For offline computers you need to use the second option. Pressing the **Create a Request File (*.req)** will create the license request file and show you the location of the file in a dialog box.

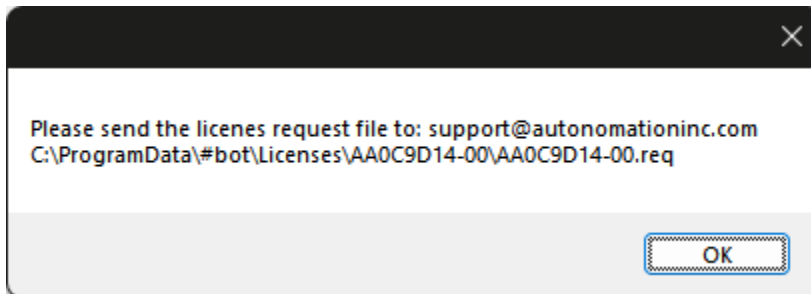


Figure 19: Request dialog box

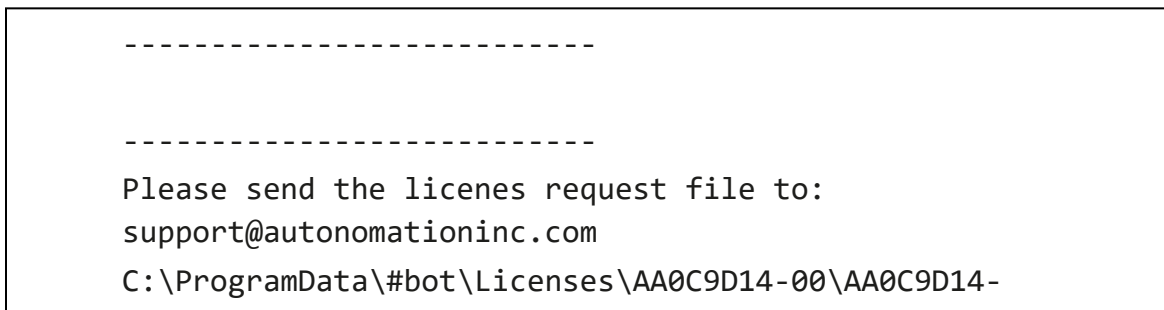


Figure 20: Request dialog box text copied using Ctrl+C

After sending this request file by email, you will be sent a license activation file as stated in the next figure.

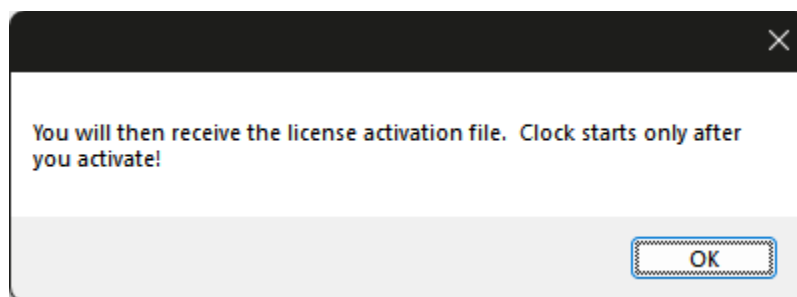
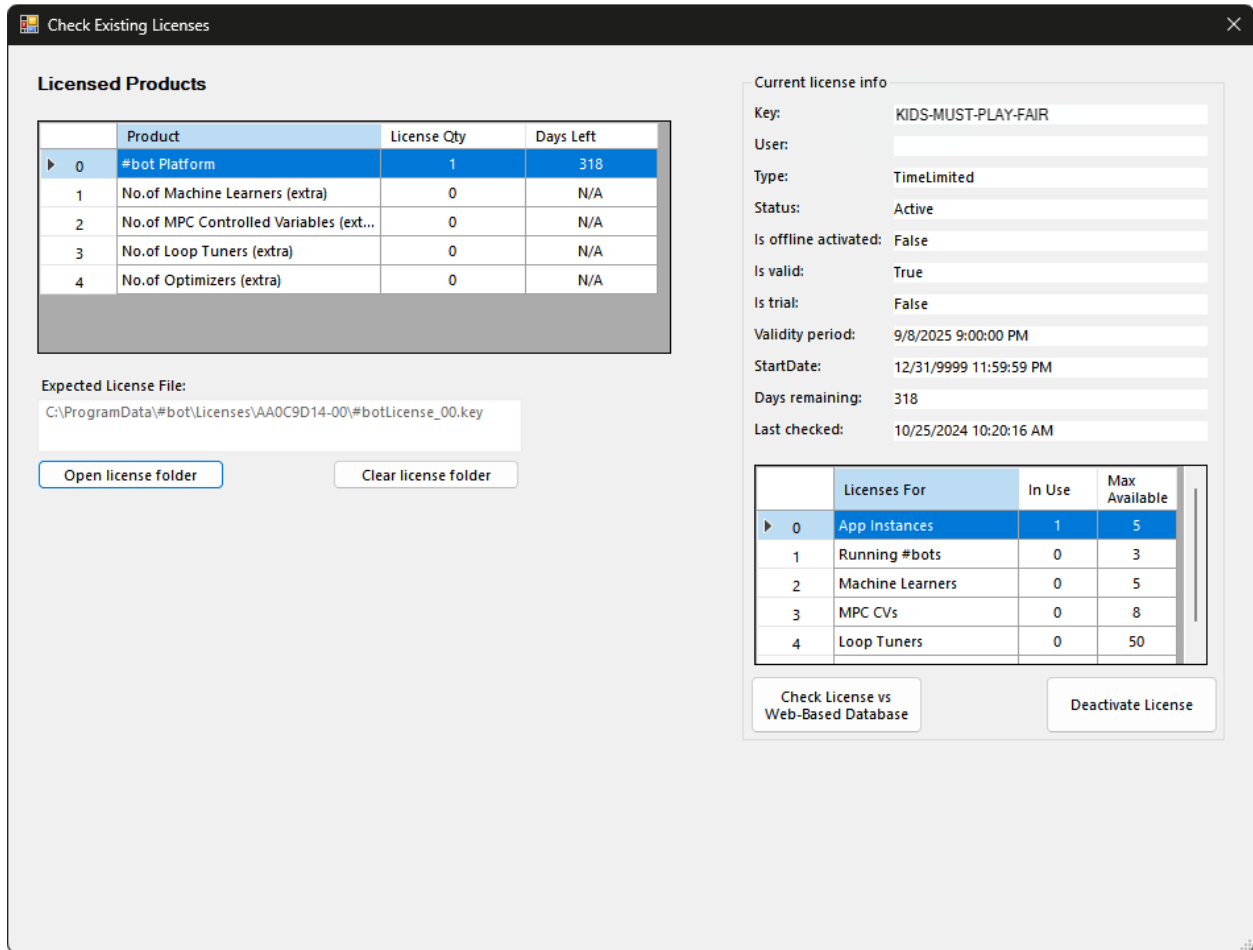


Figure 21: License file remainder dialog box

For activating the license press the **“Use the supplied license file (*.lic) to install the license here”** button and browse to the file’s location to load it.

Any of these options will end by creating a KEY file and activating the license for the current user on the current computer. If you reopen the License Manager you can check the details of the existing licenses.



Check Existing Licenses

Licensed Products

	Product	License Qty	Days Left
▶ 0	#bot Platform	1	318
1	No.of Machine Learners (extra)	0	N/A
2	No.of MPC Controlled Variables (ext...	0	N/A
3	No.of Loop Tuners (extra)	0	N/A
4	No.of Optimizers (extra)	0	N/A

Expected License File:
 C:\ProgramData\#bot\Licenses\AA0C9D14-00\#botLicense_00.key

Current license info

Key: KIDS-MUST-PLAY-FAIR
 User:
 Type: TimeLimited
 Status: Active
 Is offline activated: False
 Is valid: True
 Is trial: False
 Validity period: 9/8/2025 9:00:00 PM
 StartDate: 12/31/9999 11:59:59 PM
 Days remaining: 318
 Last checked: 10/25/2024 10:20:16 AM

	Licenses For	In Use	Max Available
▶ 0	App Instances	1	5
1	Running #bots	0	3
2	Machine Learners	0	5
3	MPC CVs	0	8
4	Loop Tuners	0	50

Figure 22: Checking existing licenses