



IN Carta

Image Analysis Software

Version 1.15

Installation Guide

IN Carta Image Analysis Software Installation Guide

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Chapter 1: IN Carta Image Analysis Software



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The IN Carta® Image Analysis Software provides powerful analytics combined with an intuitive interface to simplify workflows for advanced phenotypic classification and 3D image analysis.

Faster Data

- Intuitive design makes complex analysis accessible with minimal training.
- Shorten analysis time with true parallel processing.

Reliable Data

- Sophisticated algorithms generate reliable data with minimal user input.
- Improved segmentation algorithms represent cellular structures more accurately.

Results that Matter

- See real results quickly—from populations to single cells— using integrated data visualization tools.
- User-friendly interface guides you through your discoveries with continual updates that grow with your needs.

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software, and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest level of technical service.

Our Support website—www.moleculardevices.com/service-support—describes the support options offered by Molecular Devices, including service plans and professional services. It also has a link to the Molecular Devices Knowledge Base, which contains documentation, technical notes, software upgrades, safety data sheets, and other resources. If you still need assistance, you can submit a request to Molecular Devices Technical Support.

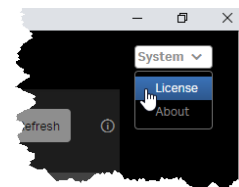
Technical Support

To contact Molecular Devices Technical Support, submit a support request through the Molecular Devices Knowledge Base at support.moleculardevices.com.

You can also submit a support request by phone. For regional support contact information, go to www.moleculardevices.com/contact.

To expedite support, please be prepared to provide the software version and the license ID.

- To display the software version, in the top right corner of the IN Carta window, click **System > About**.
- To display the license ID, in the top right corner of the IN Carta window, click **System > License**.



Documentation

Review the product documentation on the Molecular Devices Knowledge Base at support.moleculardevices.com. In addition, online Help is available within the IN Carta software.

Additional Resources

Web-based microscopy courses:

- www.microscopyu.com
- www.ibiology.org/ibioeducation/taking-courses/ibiology-microscopy-short-course.html

The *Molecular Probes Handbook* offers advice on fluorescent probes and can help you determine if there are better stains available for your analysis:

- www.thermofisher.com/us/en/home/references/molecular-probes-the-handbook.html

The *Assay Guidance Manual* details state-of-the-art approaches to high-content screening (HCS) and discussed challenges specific to HCS. It serves as a good introduction for new HCS practitioners.

- www.ncbi.nlm.nih.gov/books/NBK100913

About This Guide

This guide is intended for the scientist or IT professional who will be installing and configuring the IN Carta software. It contains critical information that helps you successfully install the software.

The information in this guide is valid for IN Carta software version 1.15 and is subject to change without notice. We recommend that you review the guide on the Molecular Devices Knowledge Base at support.moleculardevices.com for the most up-to-date information.

Chapter 2: IN Carta Software Requirements

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The following table describes the minimum and recommended requirements for the IN Carta computer:

Hardware	Minimum	Recommended
Operating System	Windows 10 Professional, 64-bit	Windows 10 Professional, 64-bit
Windows Region	English (US)	English (US)
Processor Frequency	3.2 GHz	3.7 GHz
Processor Cores	8	16
RAM	16 GB	32 GB
Hard Disk	1 TB (50 GB free)	2 x 2 TB (50 GB free)
Nvidia GPU (for the optional SINAP module or 3D Viewer only)	1 GB	24 GB
Monitor Size	---	Optimized for a 24-inch screen
Monitor Resolution	---	Optimized 1920 x 1200



CAUTION! Installation of the IN Carta software on a computer that does not meet the minimum requirements is not recommended. System functionality and performance cannot be guaranteed.




This section describes the procedures required before running the IN Carta software installer:

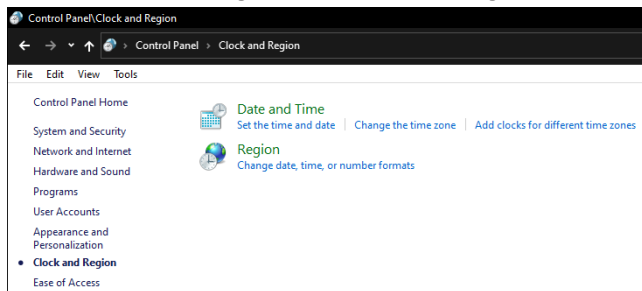
- [Setting the Windows Region Formats, see below](#)
- [Removing an Earlier Version of the Software, see page 12](#)
- [Checking the Computer, see page 12](#)

Setting the Windows Region Formats

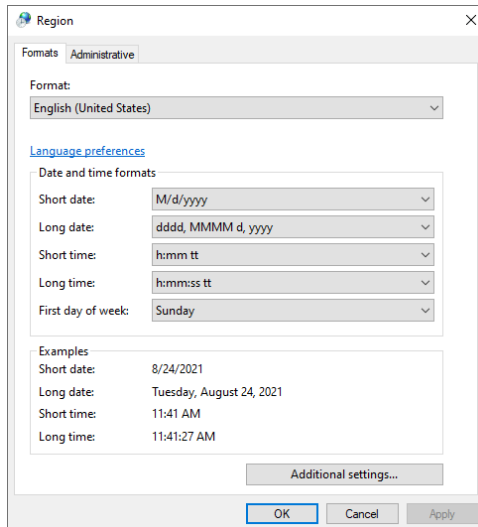
Installing the IN Carta software requires that the Windows Region Formats be set to English (United States).

To set Windows Region Formats for the software:

1. In Windows, click  **Start**, then expand **Windows System**, and click **Control Panel**.
2. Click the **View by** drop-down, and select **Category**.
3. Click **Clock and Region**.
4. In the **Clock and Region** window, click **Region**.

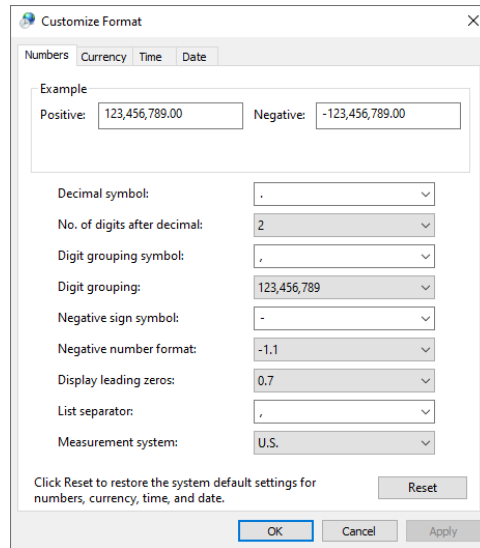


5. In the **Region** window, on the **Formats** tab, set the **Format** field to **English (United States)**.

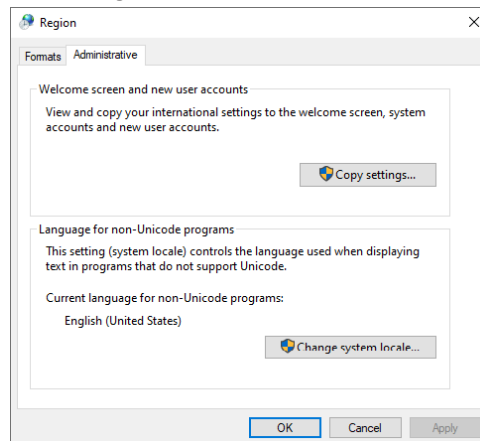


6. Click **Additional settings**.

- In the **Customize Format** window, on the **Numbers** tab, click **Reset**. This ensures that the default English language number settings are used.



- Click **OK**.
- In the **Region** window, click the **Administrative** tab.



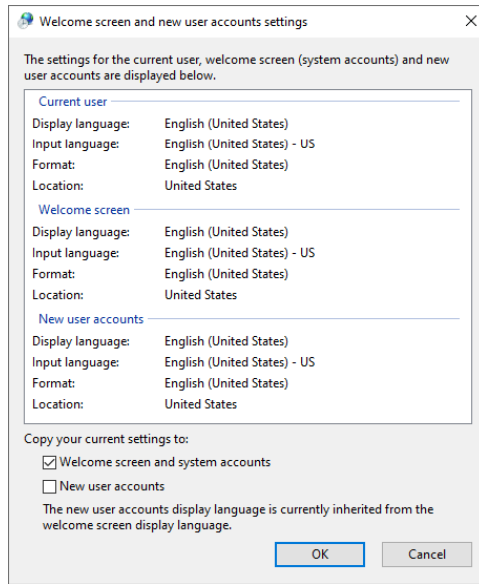
- On the **Administrative** tab, set the **Language for non-Unicode programs** to **English (United States)**.



Note: If **English (United States)** is not already set, click **Change system locale** to set it.

- In the **Welcome screen and new user accounts** section, click **Copy settings**.

12. Select the **Welcome screen and system accounts** check box.



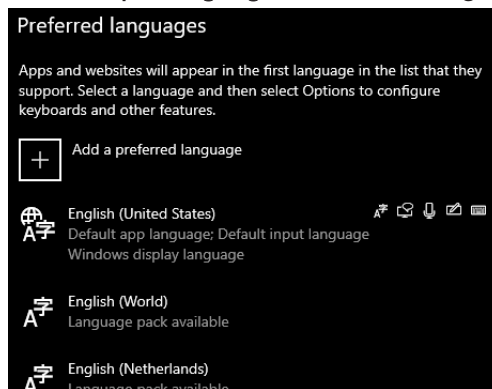
Note: This check box may not be available in all Windows 10 versions.

13. Click **OK**.
 14. Click the **Formats** tab.
 15. Click **Language preferences**.
 16. On the **Language** window, set the **Windows display language to English (United States)**.



Note: If **English (United States)** is not available in the drop-down, click the **Add a Windows display language in Microsoft Store** to obtain the correct Local Experience Pack.

17. Under **Preferred languages**, set **English (United States)** as the **Default app language** and **Default input language**. The default language appears at the top of the list of languages.



Note:

- If **English (United States)** is not already set, click it, and use the arrow buttons to move it to the top of the list.
- If **English (United States)** is not listed, click **Add a preferred language**, and follow the on-screen prompts to install it.

18. If you made changes to any settings, restart the computer.

Removing an Earlier Version of the Software

If you are upgrading to version 1.15 of the IN Carta software from version 1.14 or version 1.13, you must first uninstall the earlier version (including INCarta, INCarta_Base, and INCarta_Models) before running the IN Carta software installer.



Note: We recommend that you restart the computer BOTH before and after uninstalling an earlier version of the software.

If you are upgrading from a software version earlier than version 1.13, contact Molecular Devices Technical Support. See [Obtaining Support on page 6](#) for details.

After Upgrading

After upgrading the IN Carta software, results from the earlier version will be accessible in the version 1.15 if either of the following is true:

- The results were generated in version 1.14 or 1.13 of the software.
- The results were converted to the version 1.14 or 1.13 data format (during earlier upgrades).

Existing data sets are converted to the current format the first time you open them in version 1.15. After a data set is converted, the results can no longer be viewed the earlier version.

Checking the Computer

To run the IN Carta software, confirm that the following is true:

- The computer meets the minimum requirements described in [IN Carta Software Requirements on page 7](#).
 - The User Account has Administrative login rights on the computer.
 - The **User Account Control Setting** in Windows settings (**Control Panel > System and Security > Security and Maintenance > Change User Account Control**) is set to **Never Notify** during installation.
-



Note: This setting is only required during installation. You can revert the setting after the software is installed.

- The user name for the Windows account on the IN Carta computer contains only alphanumeric characters. No special characters (including spaces, periods, or underscores) are allowed. You may need to work with your IT Department to get an account that meets this requirement.
- No other installation of the IN Carta software exists on the computer. See [Removing an Earlier Version of the Software on this page](#) for details.
- The IN Carta folder (C:\Program Files\INCarta) does not exist on the computer. If it does exist, delete it.
- All files, folders, and programs are closed.
- The Windows Region Formats are set as described in [Setting the Windows Region Formats on page 9](#).

This section describes the procedures required to install version 1.15 of the IN Carta software:

- [Downloading the Software Installer](#), see below
- [Installing the Software](#), see page 14
- [Verifying the GPU Driver for the SINAP Module and 3D Viewer on page 15](#) (optional)
- [Installing the SINAP Deep Learning Models on page 16](#) (optional)
- [Activating the Software License](#), see page 17



Note: The IN Carta software does not support direct upgrades from earlier versions. If you are upgrading from an earlier version, you must uninstall that version before running the IN Carta software installer. See [Removing an Earlier Version of the Software on page 12](#) for details.

Downloading the Software Installer

You can download the IN Carta software installer from the Molecular Devices Knowledge Base.



Note: If the IN Carta computer is not connected to the Internet, use another computer that has an Internet connection to download the software installer, and then transfer it to the IN Carta computer.

To download the software installer:

1. In a browser, log in to the Molecular Devices Knowledge Base at support.moleculardevices.com, and search for **IN Carta Page**.



Note: If you do not have a Knowledge Base account, click **Create Account** and follow the on-screen instructions.

2. Under **Downloads**, click **IN Carta Software**.
3. Download the following installers and corresponding checksum files to the **Desktop** folder:
 - INCarta_Base_1.4.exe
 - INCarta_1.15.0903279.exe
 - INCarta_1.15.0903279_checksum.exe
4. If you are installing the SINAP module, also download the following installer to the **Desktop** folder:
 - INCarta_models_1.3.exe
5. In Windows File Explorer, browse to the **Desktop** folder.
6. Double-click **INCarta_1.15.0903279_checksum.exe** to verify the integrity the software installer.
 - If the checksum file test passes, the software installer version displays.
 - If the checksum test fails, a file corruption error displays. Repeat these steps to download the installer again.

Installing the Software



CAUTION! You must complete the steps described in [Before Installing the IN Carta Software on page 9](#) in order to run the IN Carta software installer. Otherwise, system functionality and performance may be affected.

To install the IN Carta software.

1. Do the following to install IN Carta Base.
 - a. Right-click **INCarta_Base_1.4.exe** and select **Run as administrator**.
 - b. Click **Install**.
 - c. When the installation completes, click **Close**.
2. Do the following to install IN Carta Software.
 - a. Right-click **INCarta_1.15.0903279.exe** and select **Run as administrator**.
 - b. Review the license agreement.
 - c. If you accept the license agreement, select the **I agree to the license terms and conditions** check box.
 - d. Click **Install**.
 - e. If a message displays about monitor resolution, click **Yes** to continue installing.
 - f. When the installation completes, click **Close**.


Verifying the GPU Driver for the SINAP Module and 3D Viewer

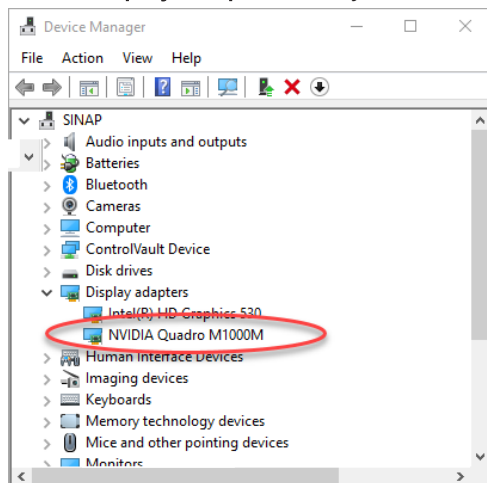
The optional SINAP module and optional 3D Viewer require a supported Nvidia graphics processing unit (GPU) with the latest driver. If you have purchased one or both of these modules, you must confirm that your GPU driver is current.



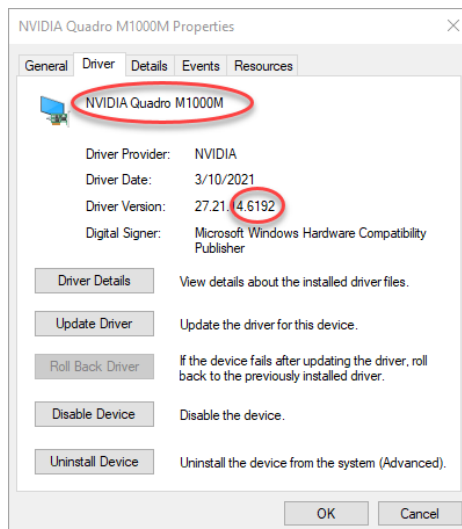
Note: If you did not purchase the SINAP module or the 3D Viewer, you can skip this procedure.

To verify the GPU driver installed in the IN Carta computer:

1. Right-click  **Start**, and select **Device Manager**.
2. Under **Display Adapters**, verify that an Nvidia GPU is listed.

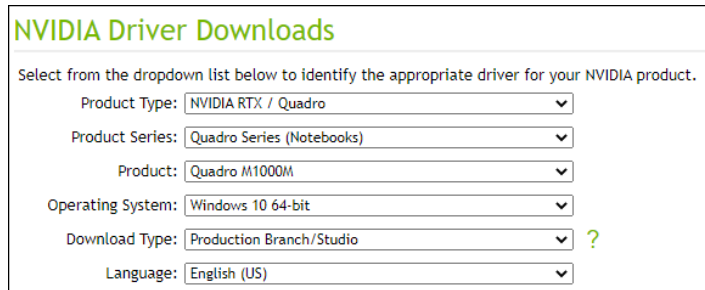


3. Double-click the Nvidia GPU and click the **Driver** tab.
4. Note the GPU model and the last five digits of the driver version.



5. In a browser, go to www.nvidia.com/download/index.aspx.

- On the **NVIDIA Download Drivers** page, select your GPU model and operating system.



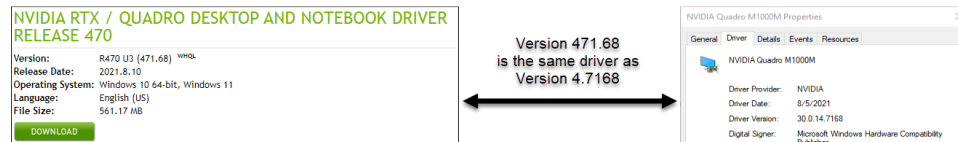
Note:

- If a **Download Type** drop-down appears, select **Production Branch/Studio** or **Studio Driver (SD)**.
- With a Telsa series GPU, in the **CUDA Toolkit** drop-down, select **11.0**.

- Click **Search**.
- Check the version of the driver that displays and do one of the following:
 - If the displayed driver is the same as your installed driver, no action is required. You can skip the rest of this procedure.
 - If the displayed driver is a later version than your installed driver, continue this procedure to download and install the latest driver.



Note: The driver version number appears differently on the Nvidia website and in the Device Manager Properties dialog. The decimal point is shown in different place. For example, the driver shown on the website as version 471.68 appears in the Device Manager Properties dialog as version 4.7168.



- Click **Download** and follow the on-screen prompts to download the driver.
- In Windows File Explorer, browse to the location of the downloaded driver.
- Double-click the driver and follow the on-screen prompts to install it.

Installing the SINAP Deep Learning Models

The optional SINAP module requires that you install the SINAP deep learning models.



Note: If you did not purchase the SINAP module, you can skip this procedure.

To install the deep learning modules for the SINAP module:

- Right-click **INCarta_Models_1.3.exe** and select **Run as administrator**.
- Click **Install**.
- When the installation completes, click **Close**.

Activating the Software License

To activate the IN Carta software license, you need the following:

- IN Carta License Activation utility, which is installed on your computer along with the IN Carta software.
- Activation Code, which you received from Molecular Devices.



Note:

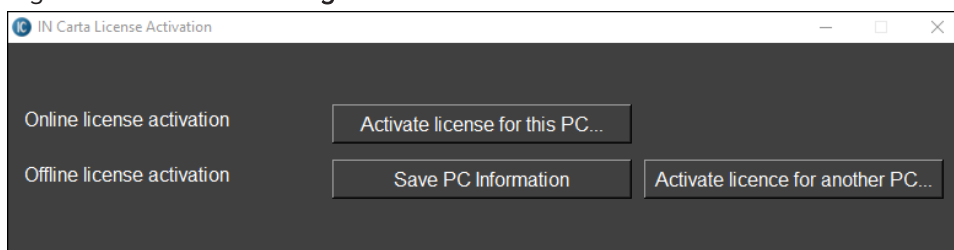
- If you do not have your activation code, contact Molecular Devices Technical Support. See [Obtaining Support on page 6](#) for details.
- An activation code can only be used to activate a license one time. If you need to reuse a code, it must be reset by Molecular Devices Technical Support.

Activating the software license requires a computer with an Internet connection to download a license file. If the IN Carta computer is not connected to the Internet, you can use another computer that has an Internet connection to download a license file, and then transfer it to the IN Carta computer.

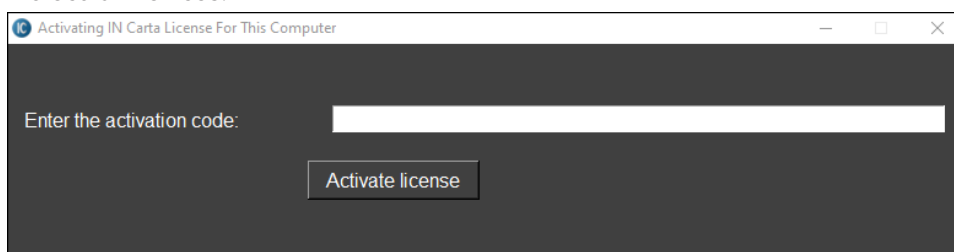
Activating on an IN Carta Computer Connected to the Internet

To activate the software license on an IN Carta computer with an Internet connection:

1. On the IN Carta computer, in Windows File Explorer, browse to the `C:\Program Files (x86)\INCarta_License` folder.
2. Right-click **INCartaLicensing.exe** and select **Run as administrator**.



3. Next to **Online license activation**, click **Activate license for this PC**.
4. In the **Enter the activation code** field, enter the activation code you received from Molecular Devices.

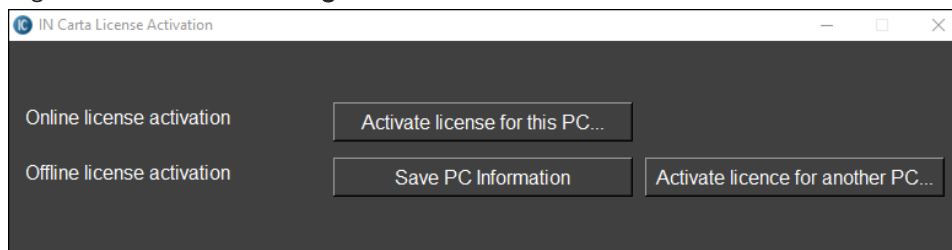


5. Click **Activate license**.

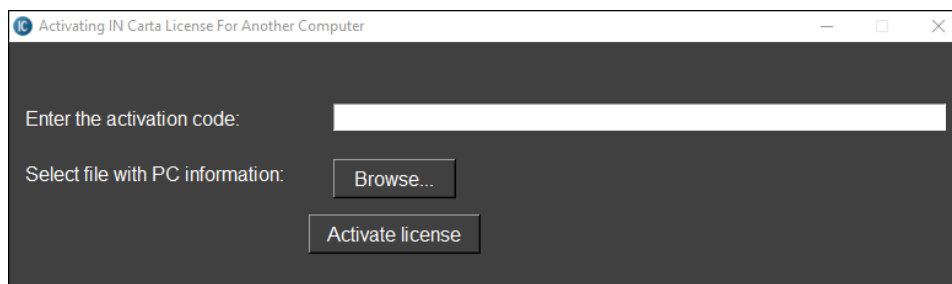
Activating on an IN Carta Computer Not Connected to the Internet

To activate the software license with the IN Carta computer without an Internet Connection:

1. On the IN Carta computer, in Windows File Explorer, browse to the `C:\Program Files (x86)\INCarta_License` folder.
2. Right-click **INCartaLicensing.exe** and select **Run as administrator**.



3. Next to **Offline license activation**, click **Save PC Information**.
The IN Carta License Activation utility creates an **INCartaLicenseActivation** folder on the **Desktop**.
4. Transfer this folder to the **Desktop** folder of a computer connected to the Internet.
5. On the computer connected to the Internet, right-click **INCartaLicensing.exe** and select **Run as administrator**.
6. Next to **Offline license activation**, click **Activate license for another PC**.
7. In the **Enter the activation code** field, enter the activation code you received from Molecular Devices.



8. Next to **Select file with PC information**, click **Browse**.
9. Navigate to the **INCartaLicenseActivation** folder on the **Desktop**.
10. Select **PCInfo.lcf**.
11. Click **Open**.
12. Click **Activate license**.
The IN Carta License Activation utility creates a License file (`license.lic`) the **INCartaLicenseActivation** folder on the **Desktop**.
13. Transfer the License folder back to the `C:\Program Files (x86)\INCarta_License` folder on the IN Carta computer.

Chapter 5: After Installing the IN Carta Software

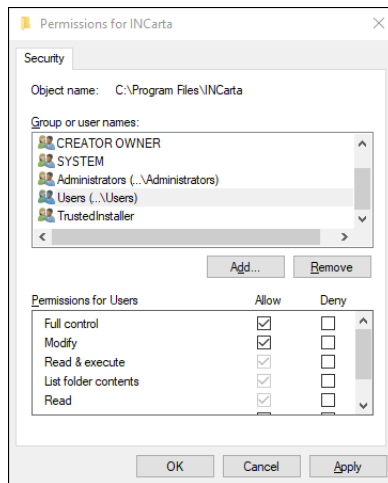
5

This section describes the procedures required after running the IN Carta software installer:

- [Granting User Group Permissions](#), see below
- [Granting Software Permissions](#), see page 20

Granting User Group Permissions

If multiple users will be logging in to the IN Carta computer, you must grant Full Control permission to the Users group for IN Carta folder.

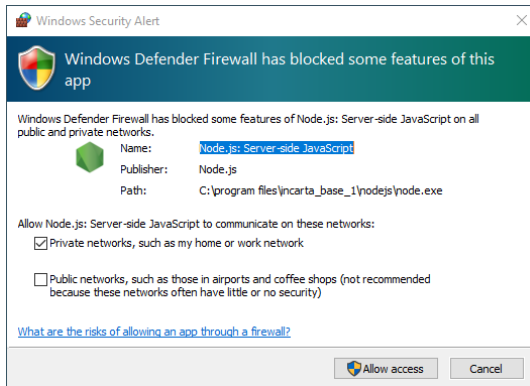


To grant user group permissions:

1. In Windows File Explorer, browse to the `C:\Program Files` folder.
2. Right-click on the **INCarta** folder, and select **Properties**.
3. Click the **Security** tab.
4. Click **Edit**.
5. In the **Group or user names** list, select **Users**.
6. In the **Permissions for Users** list, next to **Full control**, select the **Allow** check box.
7. Click **OK**.
8. Click **OK**.

Granting Software Permissions

The first time you run the IN Carta software after installing, one or more Windows Security Alerts may appear.



These alerts are requesting that you grant the permissions required to run the software. If an alert appears, click **Allow access**.

Contact Us

Phone: [+1-800-635-5577](tel:+18006355577)
Web: moleculardevices.com
Email: info@moldev.com

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