

Orca3D Installation and License Activation Instructions

For use with versions of Orca3D with the CopyMinder License Protection System

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The CopyMinder licensing system is straightforward to activate, non-intrusive, and reliable. Importantly, it will automatically handle situations where you need to move the software to a new computer or re-install after a hardware failure, without the need to contact us or for you to go to a website to deactivate your old license. This capability is possible because the system accesses the CopyMinder server over the Internet every so often. Some time before Orca3D is **required** to contact the CopyMinder server, the system **tries** to connect to the server (a so-called “pre-check”); if it is successful it resets the time until the next required contact; if it is unable to, it will notify you that you must be connected to the Internet within a specific amount of time so that it can validate the license again.

For this reason, it’s strongly recommended that you install Orca3D on a computer that is connected to the Internet (either the standalone or the network server; network client computers do not need to be connected to the Internet). However, if that is not possible, there is an alternative procedure to activate the license manually without internet access. In this situation, if you have a hard drive crash or need to move the software to a new computer you will need to contact us for help.

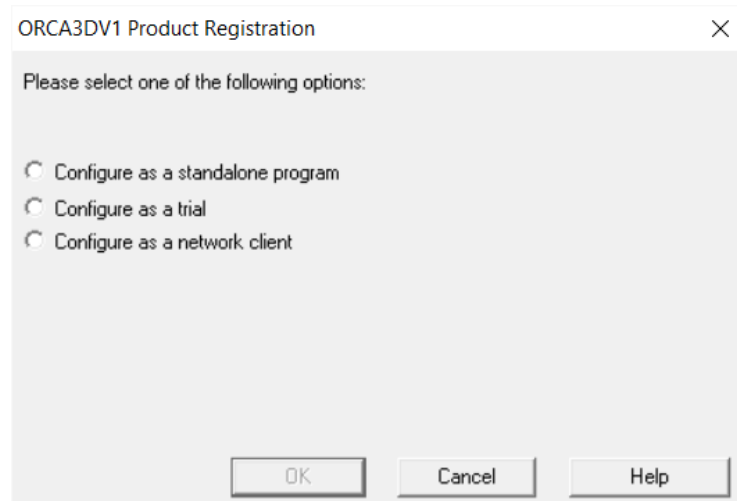
1. Standalone License Installation

The following sections describe the process for installing Orca3D with a standalone license. The first section describes the installation process if you have Internet access. This is the preferred approach. The second section should be used only in cases where the machine where Orca3D is installed and running does not have Internet access.

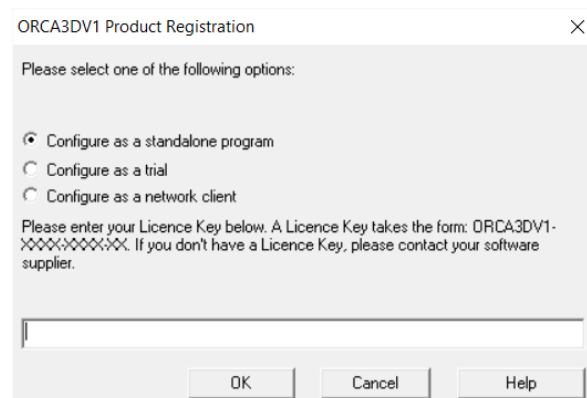
1.1. Standalone Installation with Internet Access

Please follow the steps below carefully.

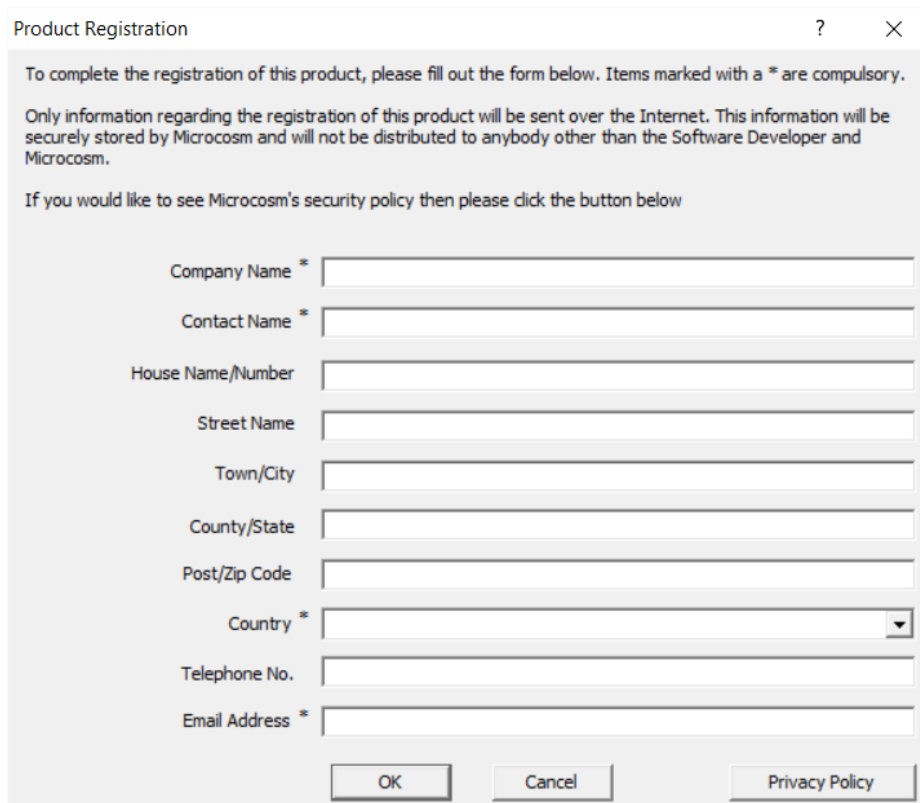
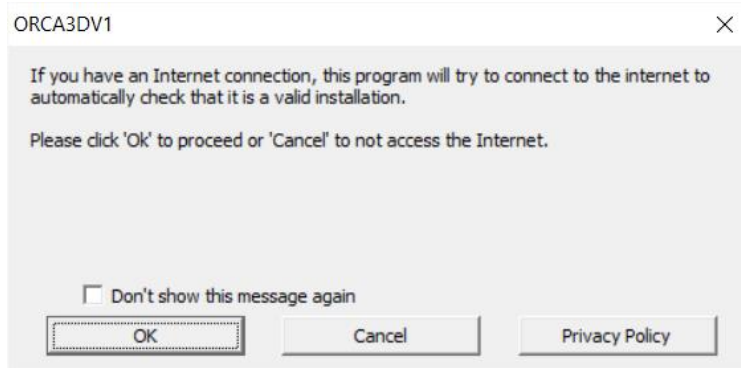
1. You should have Administrative privileges on the computer, and the computer must have Internet access. If it does not, please see the section “Installation without Internet Access.”
2. Rhino must be installed prior to the installation of Orca3D.
3. If you have previously installed a trial license or a network version of Orca3D on this computer you must follow these steps (if you have a standalone license already installed and are simply updating Orca3D, you should not do this):
 - Uninstall Orca3D
 - Delete the folder C:\ProgramData\BCO\ORCA3DV2 (or if you are using Version 1, delete the folder C:\ProgramData\BCO\ORCA3DV1) (Note that the folder is **ProgramData**, not **Program Files**; if C:\ProgramData is hidden, see <https://support.microsoft.com/en-us/help/4028316/windows-view-hidden-files-and-folders-in-windows-10> for information on how to find it)
4. Run the Orca3D installation file, following the prompts. When the installation is complete, start Rhino.
5. Rhino will load the Orca3D plug-in, which will then search for a license. The following dialog will be shown (note that if you don't see it, it may be hidden behind the Rhino splash screen):
 - If you have purchased a standalone license and have a CopyMinder License Key which begins with ORCA3DV1 or ORCA3DV2, select “Configure as a standalone program.” If you own an Orca3D license but have not yet received your CopyMinder License Key, please contact support@orca3d.com, and include your old License Code (389000...).
 - If you have not yet purchased a license and received a License Key, you should select “Configure as a trial”
 - If you have purchased a Network license, please select “Configure as a network client” and **see the Network Installation instructions**



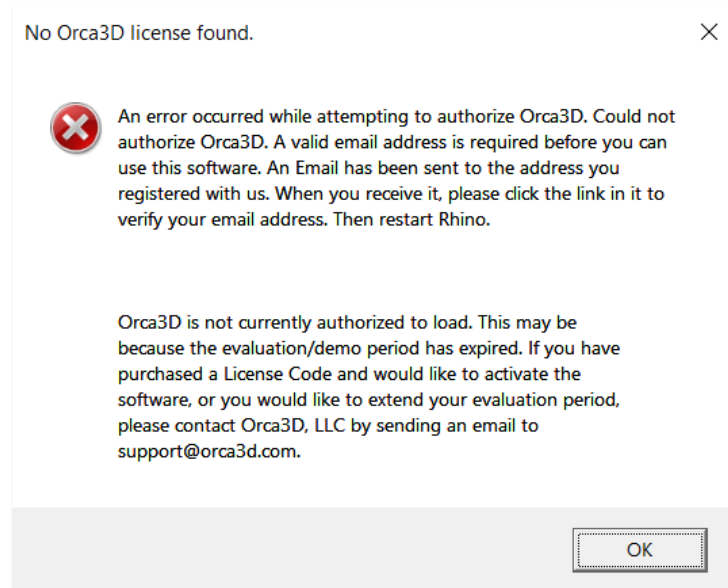
6. If you select “Configure as a standalone program,” you will be prompted to enter the License Key. If you have purchased Orca3D but do not have a License Key, please contact sales@orca3d.com.



7. After entering the License Key (or if you have selected “Configure as a trial”) the system notifies you that it will connect to the Internet, and then you will be asked to register your license. It is important to enter an accurate email address, because the system will send a confirmation email to that address. You must respond to this confirmation email in order to activate the license or the trial. *If you don't see the email, check your spam folder.*



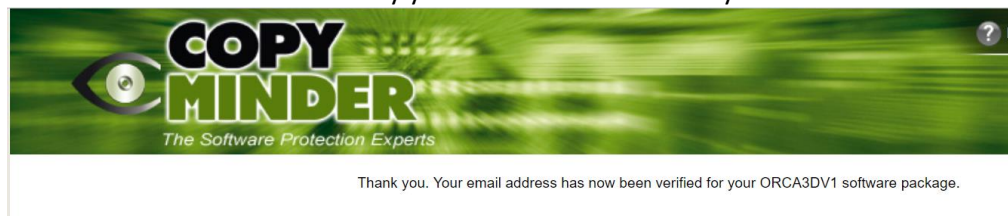
8. If CopyMinder is unable to establish an Internet connection, it will ask you if you wish to activate the software manually. If you do not have Internet access, please refer to the section on Installation without Internet access.
9. After entering your information:
 - If you are configuring as a standalone program or configuring as a trial, the system will respond that it cannot find a license (because you have not yet confirmed via email). Rhino will then load without Orca3D.



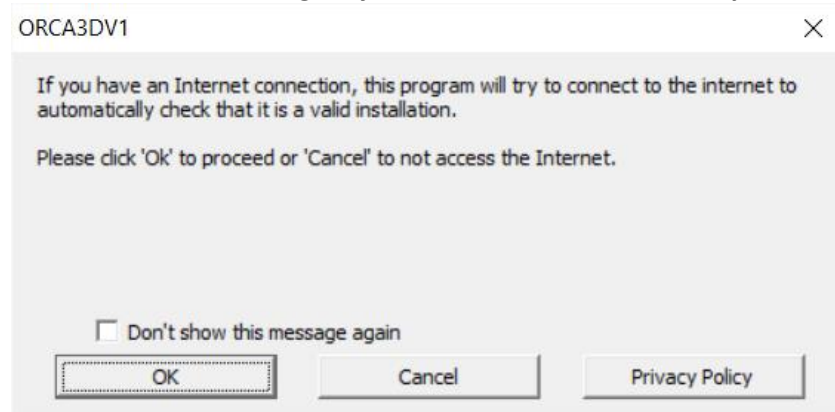
10. **Close Rhino** and look for an email from CopyMinder.



11. Click on the link in the email to verify your address and activate your license.



12. Start Rhino. Again, the system will notify you that it will access the Internet. You may want to check the box next to “Don’t show this message again” and then click OK. Rhino will then load with Orca3D. **Note that this dialog may be hidden behind the Rhino splash screen.**



13. If you configured as a trial, you will be shown a dialog noting that you are running in Evaluation mode, and the amount of time remaining on your evaluation will be shown (it should start at 15 days).

The license needs to access the CopyMinder server for a protection update periodically. If you haven't used Orca3D for a period and then try to use it without an Internet connection, it will fail the update. Therefore, if you plan to use the software without Internet access (e.g., on a flight) it's a good idea to open Rhino and close it while you still have Internet access so that Orca3D can contact the server and reset the time required for internet access.

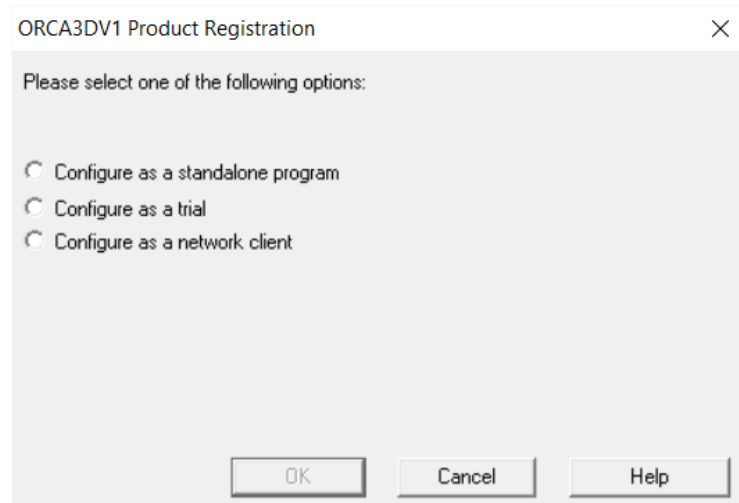
1.2. Standalone Installation without Internet Access

Note: Orca3D has several dependencies on third party software components. Normally, the Orca3D installation automatically downloads and installs these dependencies as needed. If you need to install them separately, (such as if your Orca3D computer is not connected to the Internet), they can be found at the following links. They must be installed prior to running the Orca3D installation file.

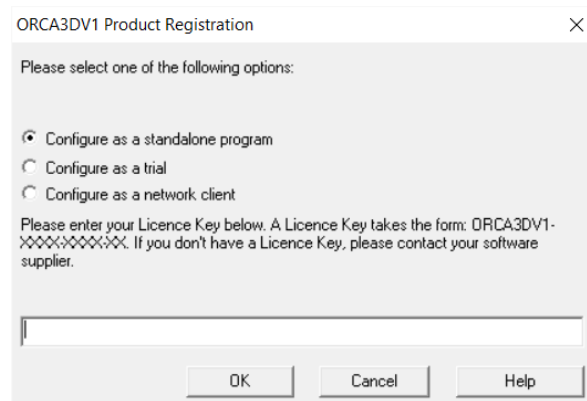
- [Microsoft .Net Framework 3.5 SP1](#) (Note that depending on your OS it may be likely that you already have this installed. You may want to check your installed programs before downloading)
- [Microsoft ReportViewer 2010](#)

Please follow the steps below carefully.

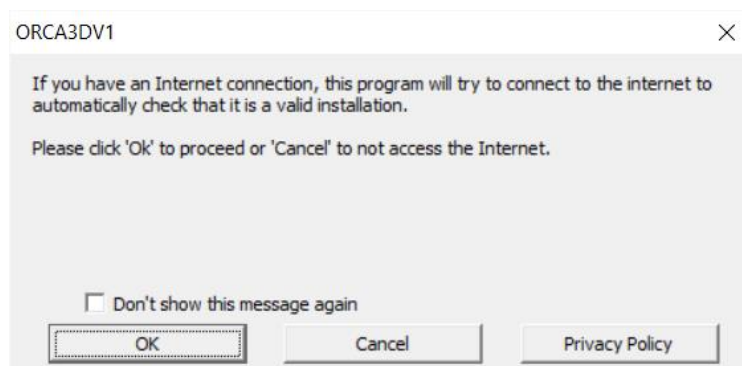
1. You should have Administrative privileges on the computer.
2. Rhino must be installed prior to the installation of Orca3D.
3. If you have previously installed Orca3D on this computer (e.g., a trial license or a network client), you must first:
 - Uninstall Orca3D
 - Delete the folder C:\ProgramData\BCO\ORCA3DV2 (or if you are using Version 1, delete the folder C:\ProgramData\BCO\ORCA3DV1) (Note that the folder is **ProgramData**, not **Program Files**; if C:\ProgramData is hidden, see <https://support.microsoft.com/en-us/help/4028316/windows-view-hidden-files-and-folders-in-windows-10> for information on how to find it)
4. Run the Orca3D installation file, following the prompts. When the installation is complete, start Rhino.
5. Rhino will load the Orca3D plug-in, which will then search for a license. The following dialog will be shown (note that if you don't see it, it may be hidden behind the Rhino splash screen):
 - If you have purchased a standalone license, select "Configure as a standalone program"
 - If you have not yet purchased a license and received a License Key, you should select "Configure as a trial"
 - If you have purchased a Network license, please select "Configure as a network client" and **see the Network Installation instructions**



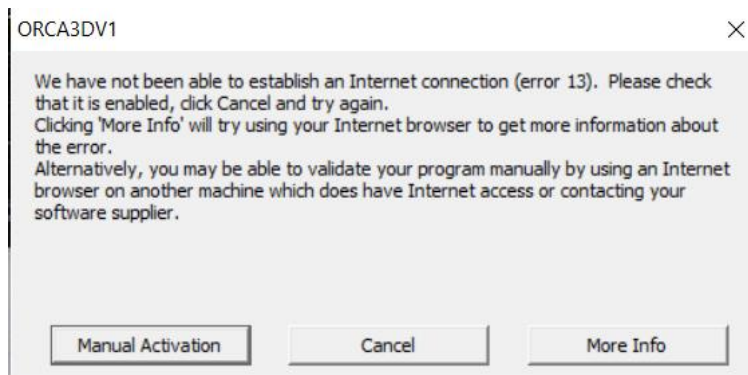
6. If you select “Configure as a standalone program,” you will be prompted to enter the License Key. If you have purchased Orca3D but do not have a License Key, please contact sales@orca3d.com.



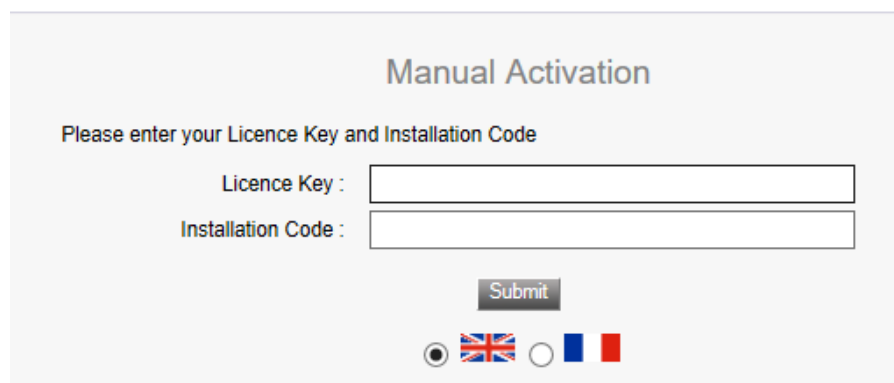
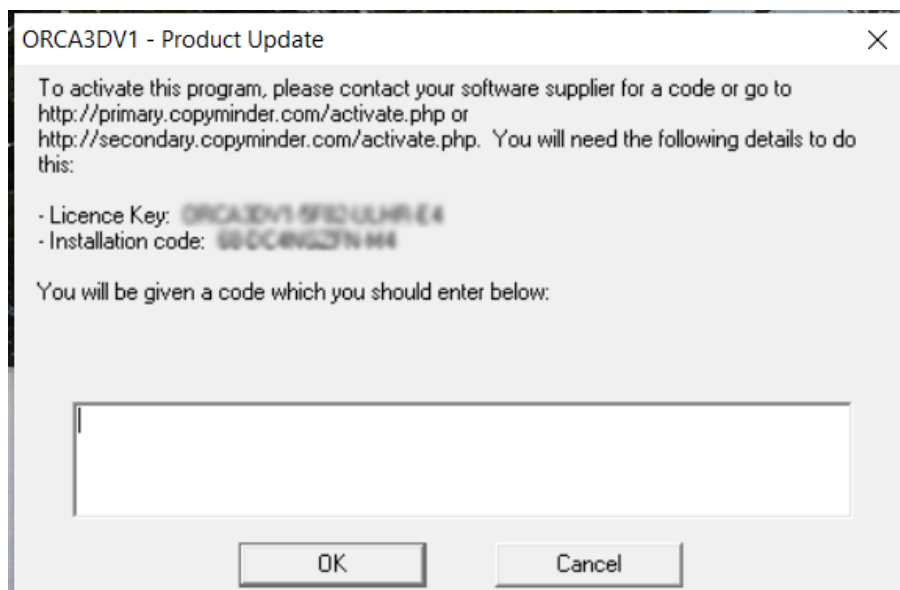
7. After entering the License Key (or if you have selected “Configure as a trial”) the system notifies you that it will try to connect to the Internet. Since you do not have Internet access, click Cancel.



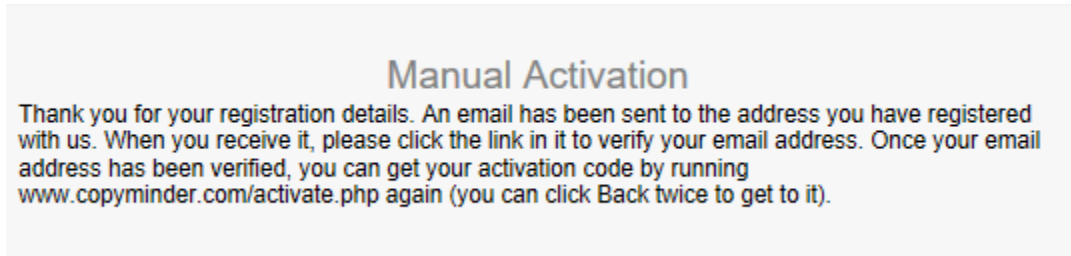
Now click Manual Activation.



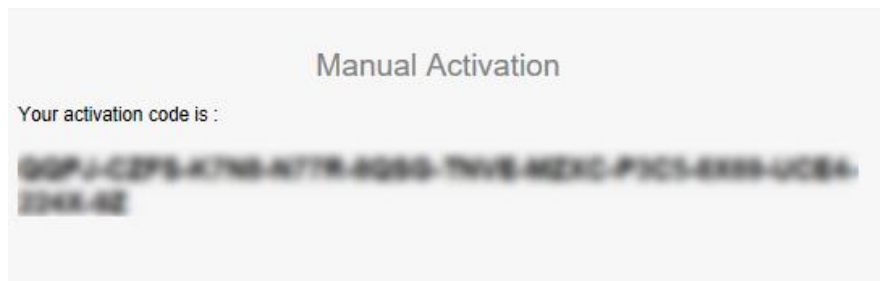
The following dialog will appear, showing your License Key and an Installation code. On a computer with Internet access, go to the website shown with that information to generate a code. Enter that code in this dialog and click OK.



If you are configuring as a trial, you will then be asked to enter your registration information. Company name, Contact name, Country, and Email address are required. Please enter your email address accurately; the system will send an email to that address which you must respond to in order to activate the trial. If you do not see the email, check your spam folder.



Enter your License Key and Installation Code again, and you will receive the activation code.



Enter this code to complete the activation.

8. Rhino will then load, with Orca3D.
9. Should you ever need to move Orca3D to a new computer or re-install it after replacing or reformatting the hard drive, you will need to contact us for help in activating it.

2. Installation of a Floating Network License

First you will install the CMServer on your server and activate the license. When that is operating properly, you will install Orca3D on your client computer(s). Please follow the steps below carefully.

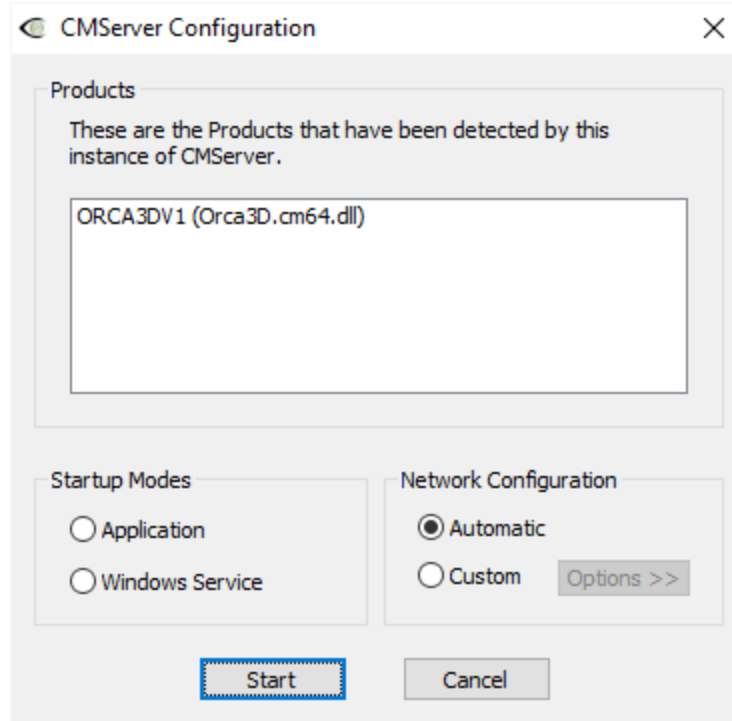
2.1. Installation on the Server

1. Run the file "InstallOrcaNetworkServer-xxxxxxx.exe" on the server (xxxxxxx will reflect the version number).
2. This will install the files CMServer.exe, CMInstall.exe and Orca3D.cm64.dll.cm into a directory on the server. Exactly where this directory is located is left up to you, but it defaults to "Program Files (x86)\Orca3D Network Server." CMServer must have write access to the folder the .cm file is located in. (If this folder is under a directory with limited access rights, such as the Program Files directory, you will need to run CMInstall with the /N command-line parameter for the folder where you place the .cm file.)

[C:] > Program Files (x86) > Orca3D Network Server

Name	Date modified	Type
Banner1.bmp	4/15/2015 12:57 PM	BMP File
CMInstall.exe	9/12/2018 3:47 PM	Application
CMServer.exe	9/12/2018 3:47 PM	Application
Orca3D Network License Installation Instructions.pdf	9/12/2018 12:01 PM	Adobe Acrobat Docum
Orca3D Release Notes.rtf	6/5/2018 10:06 AM	Rich Text Format
Orca3D Software License Agreement Version 03_12_18.	3/21/2018 12:28 PM	Rich Text Format
Orca3D.cm64.dll.cm	9/12/2018 3:47 PM	CM File
OrcaNetworkServerCustomActions.dll	9/12/2018 5:06 PM	Application extension
OrcaNetworkServerCustomActions.InstallState	9/13/2018 11:30 AM	INSTALLSTATE File
pdf.ico	4/15/2015 12:57 PM	Icon

3. Run CMServer with Administrative privileges (right-click on the file and select Run as Administrator). It will display the configuration window.



4. You will now need to decide whether you want to run CMServer as an application or a service. Some things to consider regarding this choice:
 - An application requires there to be a user logged in on the machine for it to run. This may not always be the case on server machines. If you choose to run CMServer as an application and want to have it start automatically when the user logs in, then you must create a shortcut to CMServer in that user's Startup start menu folder which gives the appropriate command-line parameters to make CMServer start automatically.
 - A service starts automatically when the machine starts and does not require a user to be logged in for it to run. This is now the most common way of running a background task on Windows.
 - Which method is chosen depends on a particular user's needs and requirements. **Running CMServer as an application may be the ideal choice initially while setting up the system, switching to running it as a service when you have everything set up correctly.**

When you have decided how you want to run CMServer select the appropriate option from the Startup Modes section.

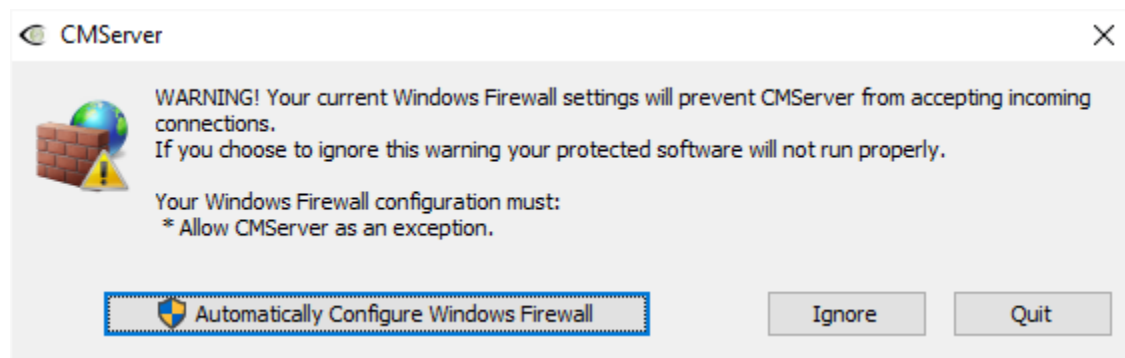
5. The Network Configuration section allows you to configure the network settings that CMServer will use. In Automatic mode, CMServer will automatically choose the settings based on the best defaults combined with any existing configuration settings. This is the recommended setting. Custom mode allows you to manually specify the IP address and port that CMServer will listen on. ***If you are using other software that uses CopyMinder (NavCad, ShipWeight, ExpressMarine, MAESTRO, etc.) you should select Custom and choose a different port than is being used for those programs. For Orca3D, we suggest using 13712 (10589 is the default).***

6. Click the Start button to start CMServer in the selected mode. CMServer will now attempt to connect to the Internet.
7. If CopyMinder is unable to establish an Internet connection, it will ask you if you wish to activate the software manually. If you choose to do so, you will be given a unique Installation Code and asked to enter a corresponding Activation Code. You need to give us this Installation Code and your License Key so that we can generate an Activation Code for your particular installation, or you can generate this Activation Code yourself on another computer which has Internet access by going to primary.copyminder.com/activate.php or <http://secondary.copyminder.com/activate.php>. The web page will respond with an Activation Code. You should enter the Activation Code and the Orca3D network license server will then run provided it is not moved from its current location. Should you need to move it, you will need to contact us for help in activating it on the new computer.

8. Firewalls

Like most server software, CMServer accepts incoming connections by "listening" on a given IP address and port. If the machine running CMServer also has a firewall (including Windows firewall as well as third party firewall software), then the firewall software will need to be explicitly told to allow the incoming connections to get through to CMServer. Likewise, if a firewall exists on a machine between the server machine (the one running CMServer) and the client machines then this will need to be configured too.

CMServer will in most cases offer to automatically configure the firewall. You may accept this or alternatively manually configure the firewall.



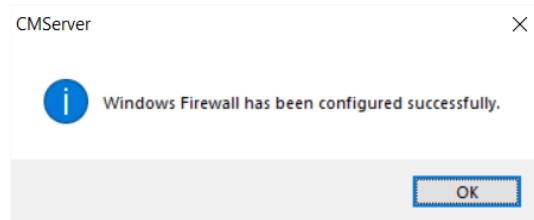
IMPORTANT

Failure to correctly configure your firewall(s) could result in the CopyMinder Server being inaccessible by client machines.

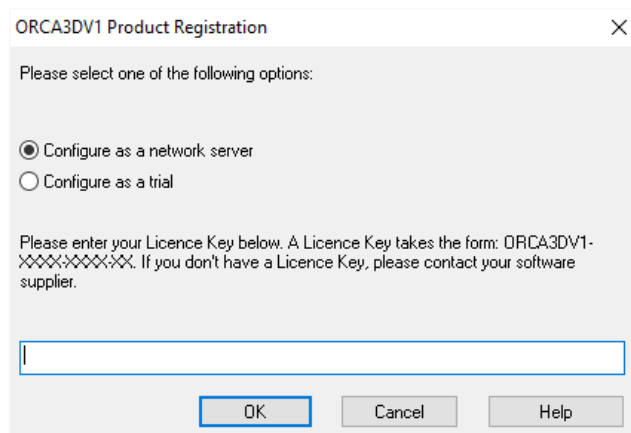
FIREWALL CHECKLIST

- Your firewall(s) must allow both TCP and UDP traffic through to CMServer.
- Your firewall(s) must allow CMServer to accept incoming connections on the IP address and port that you chose when setting up CMServer (if you accepted the Automatic option for Network Configuration in Step 5, you can go back and select Custom, then Options, to see the IP address and port that are being used)

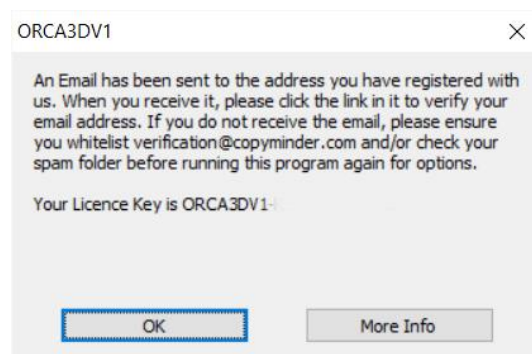
- Clients auto-detect CMServer by performing a **multicast 239.255.219.184** on whichever port you configured CMServer to listen on. Your firewall(s) must not block traffic destined for this address/port, or auto-detection will not work.



9. Select "Configure as network server" and enter the Orca3D License Key that has been provided to you.



You will be prompted to register with your Company Name, Contact Name, Country, and Contact Email Address. Be sure the email address is correct; you will need to receive and respond to a confirmation email in order to activate the license. If you do not see the email, check your spam folder.



If you see a message that CMServer is terminating, re-start it before moving on to the Client installation. We suggest that you select the Application Startup Mode for now. If you do not see the email, check your spam folder.

2.2. Installation on the Client Computer(s)

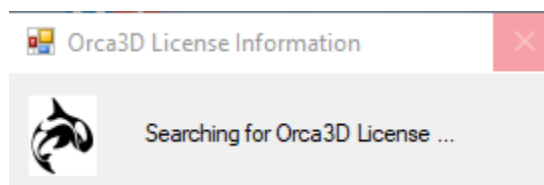
10. Run the Orca3D installation file on the client, following the prompts (if the client does not have Internet access, see the note below regarding dependencies, and install them prior to running the Orca3D installation file). If the client already has Orca3D installed and is using a trial or standalone license, you must delete the files in C:\ProgramData\BCO\ORCA3DV1\cm or C:\ProgramData\BCO\ORCA3DV2\cm and uninstall and reinstall Orca3D on the client (note that it is **ProgramData**, not **Program Files**).

Note: Orca3D has several dependencies on third party software components. Normally, the Orca3D installation automatically downloads and installs these dependencies as needed. If you need to install them separately, (such as if your Orca3D computer is not connected to the Internet), they can be found at the following links:

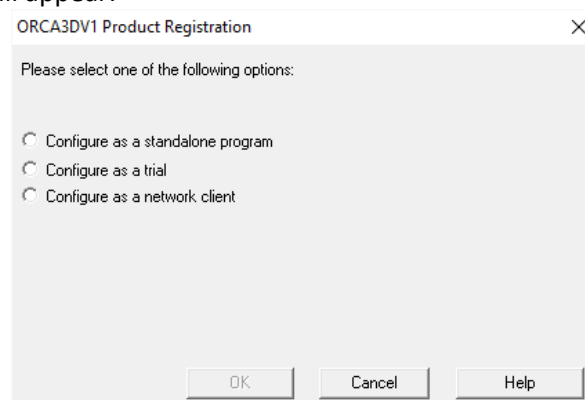
- [Microsoft .Net Framework 3.5 SP1](#) (Note that depending on your OS it may be likely that you already have this installed. You may want to check your installed programs before downloading)
- [Microsoft ReportViewer 2010](#)

The first time each client installation of Orca3D is run by starting Rhino, you will be prompted to specify what type of installation you want. You should choose Configure as a Network Client. In most cases the software will automatically detect the presence of the CopyMinder Network Server and the details will be filled in for you - all you need to do is click OK.

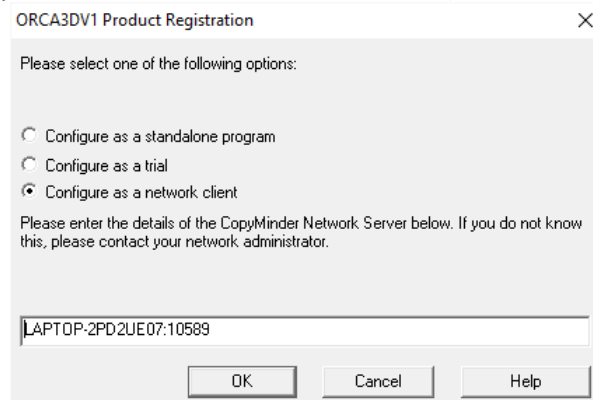
Start Rhino, and you should initially see this message (note that these dialogs may be hidden by the Rhino splash screen):



Next, this dialog will appear:



Select “**Configure as a network client,**” and the server details should be filled in. *Do not select “standalone program” or “trial.”* Click OK. Do not enter the Orca3D license key (Orca3DV2-xxxx-xxxx-xx; that is only to be used to activate the CMServer).

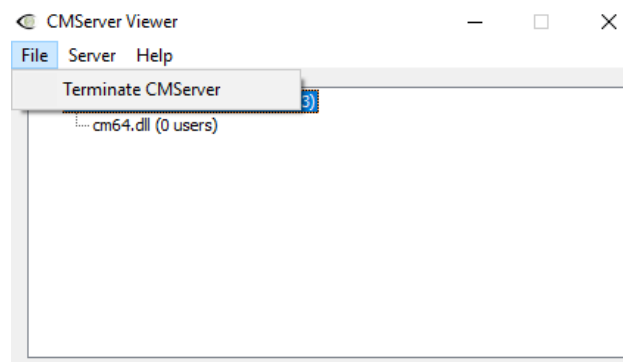


If the server details do not appear in the text field then it may be that the server is not running or a firewall is blocking communication between the client and server machines. It will usually be preferable to find and resolve the problem that caused the auto-detection to fail, as this problem could also affect the server and client's ability to communicate with each other during protection checks. However, it is possible to manually specify the server details to use, in the form SERVER:PORT, where the SERVER part can either be a hostname or an IPv4 address. For example, OFFICESERVER:10589 or 192.168.1.10:10589.

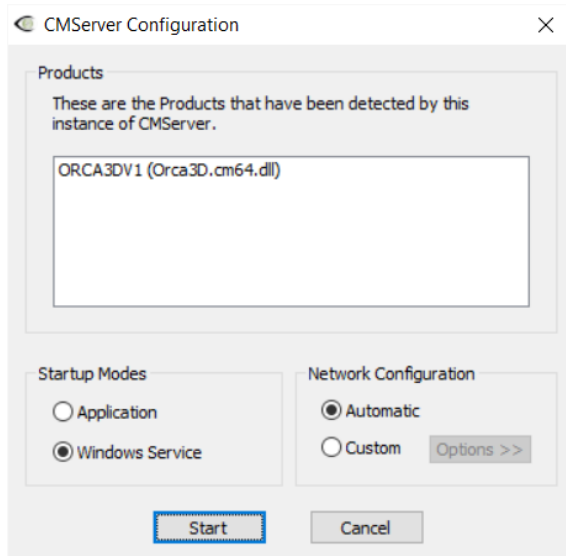
If your client and server are not in the same LAN, auto detection of the SERVER:PORT will not work, and you will need to manually enter that information when you install the client.

To be sure that everything is working properly, execute one of the Orca3D commands from the Orca3D menu (e.g., Hull Design/Hull Assistant).

- When everything is working, we recommend that you go back to the server and terminate CMServer and restart it as a Windows Service rather than an application. **To terminate CMServer, click File/Terminate CMServer. Note that clicking on the X in the upper right corner of the CMServer Viewer does not terminate the server.** If you click on the X instead of terminating, you will need to use the Windows Task Manager to terminate CMServer.



Then run CMServer.exe with Administrative privileges (right-click on the file and select Run as Administrator), and this time select the Windows Service Startup Mode:



2.3. Virtualization

Type 1 (bare metal) hypervisors

CopyMinder has been tested and found to work correctly using a VMWare vSphere (also known as ESXi) 5.5 host and vSphere 5.5 client to run 32 bit and 64 bit Windows operating systems at VM hardware levels 8 and 9.

If the host computer running ESXi supports hardware virtualization, then performance in terms of protection checking speed appears broadly comparable with running natively.

Using the VMware converter to create a virtual machine from a physical machine will cause the first protection check done under the newly created VM to be detected as a suspicious installation and require a connection to our servers. Continuing to use the same license on both the physical machine and a virtual machine will eventually cause the license to be locked out.

CopyMinder has also been tested on virtual machines under the Hyper-V role of Windows Server 2012 R2 and found to operate correctly, again with protection checks taking a comparable amount of time to running natively.

Type 2 (hosted) hypervisors

CopyMinder has been tried on Microsoft VirtualPC and VMWare running on Windows with Windows as the guest operating system and the protection check worked correctly. It has also been tested successfully on VirtualBox, but see the note below relating to hardware virtualization.

The license token should be installed as a network server type using `cmserver.exe`. Installing as a stand-alone type license is likely to cause many problems with suspicious installations.

An important thing to note is that these environments are emulators and since the run-time protection check is very CPU intensive the time taken is greatly increased, sometimes to several minutes.

When using older versions of VirtualBox, it is necessary to disable hardware virtualization in the BIOS of your computer if the processor supports this feature. Leaving it enabled will cause intermittent crashes of the protected program. Tested on v4.1.18 of the VirtualBox software. This seemed to be a bug in VirtualBox as far as we could determine and appears to now have been fixed by the developers.

2.4. Using the CopyMinder Network Server

The CMServer Viewer

When CMServer is running as an application, it will display the CMServer Viewer. This utility displays the status of the CopyMinder Network Server, the products it is serving, and the network users currently connected to it. A CMServer icon will appear in the notification area of the taskbar on the computer running CMServer.

The utility can also be used to force a particular product to access the CopyMinder server in order to update any settings you may have changed (such as the number of users). This is generally a more convenient way of getting an update than restarting the CopyMinder Network Server. To force a protection update, select the product to update from the list of products being served and select `Server > Update Product`.

You can also open the server's logfile from this utility by going to `Server > Show Logfile`. The logfile records important events during the running of the server and may need to be used from time to time to help diagnose problems.

When CMServer is running as a service, it will not display the CMServer Viewer because services cannot display Graphical User Interfaces (GUIs). However, you can still use the CMServer Viewer by running `CMServer.exe` with the `/viewer` command-line parameter (see below).

Command-Line Parameters

CMServer can accept several command-line parameters which control its behavior. These are as follows:

- `/s` Configures CMServer to install/run as a service.
- `/a` Configures CMServer to run as an application.
- `/q` Quiet mode. Only displays errors.
- `/u` Uninstalls the CMServer service. Also terminates the CMServer Viewer.
- `/t` Stops the CMServer service and terminates the CMServer Application/Viewer.
- `/viewer` Display the CMServer Viewer.
- `/logfile` Open CMServer's logfile.
- `/listen=IPADDRESS`

Sets the IP address on which CMServer accepts connections (replace IPADDRESS with your chosen IPv4 address).

/port=PORT Sets the port on which CMServer listens for connections (replace PORT with your chosen port number).

/? Displays a help window documenting these command-line parameters.

Logfile

CMServer maintains its own logfile in which it records various important events during its execution. While the server is running, all events are recorded to this file rather than being displayed on-screen. The most common reason for needing to view the logfile is to begin diagnosing a problem. You can view the logfile by running CMServer.exe with the /logfile command-line parameter. Alternatively, you can access it from the CMServer Viewer's menu.

Managing the CMServer Service

If CMServer is installed as a service, it can be controlled through Windows Services Management like any other service. To uninstall the service, run CMServer.exe with the /u command-line parameter.

2.5. Roaming Licenses

With network installations, users often want the flexibility of taking a copy of the software off-site for a period of time.

CopyMinder addresses this requirement by means of Roaming Licenses. These are licenses that are temporarily borrowed from their 'maximum simultaneous network users' count for a given license key.

(Note: Roaming is not allowed with Educational Lab Licenses)

The first step is to contact us at support@orca3d.com, with the following information:

- Your License Key
- The number of your users you would like to be allowed to roam
- The maximum number of days that they should be allowed to roam
- The email address of the network license administrator

We will enable your network license with this information and respond to you with a password. This only needs to be done one time.

Within the limits you specify, you (as the Network Administrator) can control your roaming users via a CopyMinder web page (<http://primary.copyminder.com/networkadmin.php> or <http://secondary.copyminder.com/networkadmin.php>). This web page is protected by means of the Network Administrator's password that we will provide to you when you contact us with the information above.

Network user admin

Please enter your Licence Key and password

Licence Key:

Password:



Enter your License Key and Password.

Current roaming licences:

Licence Key(s)	Start Date	Expires	Max Days from install	days
No Roaming Licences				

Create new roaming licences :

No. of new Roaming Licences <input type="text"/>	No. of days to run for <input type="text"/>
<input type="submit" value="Submit"/>	

Registration notification e-mail address:

Check this box to have an email sent to the address below upon first activation of a roaming license. [?](#)

Email address:

The system will provide you with a license key for each roaming user. The end user can use this license key to install a time-limited stand-alone copy of your software on another machine. When the time limit is reached, the roaming license is automatically returned to the pool.

If the user already has Orca3D installed on their computer and configured as a network client, they should follow these steps to install the roaming license:

1. Delete the files in C:\ProgramData\BCO\ORCA3DV2\cm (or ...\ORCA3DV1\cm if you are using Version 1)
2. In the folder where Orca3D is installed, run the program CMInstall.exe (normally in c:\Program Files\Orca3D (64-bit) or c:\Program Files\Orca3D V2)
3. Start Rhino, and using the License Key provided, follow the steps for a standalone license installation
4. When they return to the network, they should repeat steps 1-3, but this time Configure as a Network Client in step 3

It should be remembered that any changes the Network Administrator makes on the web site only affect the CopyMinder Network Server the next time that it accesses the CopyMinder server for a

protection update. Similarly, when a roaming license expires, it only gets returned to the CopyMinder Network Server on the next web access.

You can force the Network Server to access the CopyMinder server to update any settings.

When CMServer is running as an application, it will display the CMServer Viewer. This utility displays the status of the CopyMinder Network Server, the products it is serving, and the network users currently connected to it. A CMServer icon will appear in the notification area of the taskbar on the computer running CMServer.

To force a protection update, select the product to update from the list of products being served and select Server > Update Product.

When CMServer is running as a service, it will not display the CMServer Viewer because services cannot display Graphical User Interfaces (GUIs). However, you can still use the CMServer Viewer by running CMServer.exe with the /viewer command-line parameter (see below).

Roaming License FAQs

1. When you create a roaming license, does the network server know immediately that it has lost a floating license, or not until the next check?

It knows at the next check.

2. Is there a way for us in the web administration tool to see the roaming licenses that are currently tied to a network license?

It displays a list of the roaming licenses and when they expire so you can see which are unexpired.

3. When a roaming license expires, does the network server know immediately that it has regained a floating license, or not until the next check?

At the next check.

4. If a user wants to return the floating license prior to its expiration, is there a way to do this?

On the network admin page for the network license, if the roaming license key is in use the network administrator can update the max days value to '0' which will expire the roaming license and return the network user count to the pool, which will update when CMServer next connects.