

3Delight Installation Guide

For installing the software and the license server

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1 Downloading and Installing 3Delight and 3Delight for Maya

Downloading and installing the software is done by following these simple steps:

1. Click on the download link of the software for your platform of choice. Go to http://www.3delight.com/en/index.php/step_0 to make the selection.
2. On the *Windows* platform, this will automatically launch the default installer; follow the steps of the installer to complete the installation. On *Mac OS X*, double-click on the downloaded package to perform the installation using the default installer. On *Linux*, decompress and un-tar the downloaded package and go to the main directory to execute the 'install' script. An installation directory can be specified using the '--prefix' flag passed to the installation script (use `install -h` for help).

Following this installation, *3Delight* will automatically be available when you start *Maya*. In the installation folder, you can find the following manuals:

- `ReadMe.txt` (release notes of the software)
- `doc/InstallationGuide.pdf` (this document)
- `doc/3DelightForMaya-UserManual.pdf` (main user manual)
- `doc/3Delight-UserManual.pdf` (user manual for *3delight* standalone)

For using *3Delight* as a standalone software, the programs (such as `renderdl` for rendering a RIB file and `shaderdl` for compiling a shader) are located in the `bin` sub-folder of the installation folder.

NOTE: To remove the software, simply remove the downloaded file and the folder that was created following the standard installation. On the *Mac OS X* platform, the folder is located in the 'Graphics' sub-folder within the standard '/Application' folder.

2 Obtaining a License

NOTE: When running *3Delight* or *3Delight for Maya* without a license, for testing purposes, a watermark will be displayed. In this form, the renderer cannot be used for commercial work.

3Delight licensing is controlled through a separate proprietary program we provide called *license server*. That process can run on the same machine where the software is installed, or on another machine on the same network. Using this license server, we provide floating licenses: they can be used on any machine on a given network.

To obtain a license you must first determine on which machine the license server will be run and find the *hostid* of that machine. The *hostid* is a unique identifier to each machine and is used by the licensing software to correctly identify the system on which it runs.

To get the *hostid* of a particular machine, run the `licutils` command distributed with *3Delight* (located in the 'bin' sub-folder of the installation folder):

```
C:\> licutils hostid
e08122074c1
```

On windows you need to open a command prompt (also known as *DOS box*) to run the command.

With that identifier in hand, to obtain the first license offered for free, you must fill the form at http://www.3delight.com/en/index.php/products/download/step_3. To obtain a license for additional purchases, the *hostid* must be sent by email to sales@3delight.com.

IMPORTANT: The license server we provide is designed to serve licenses easily to thousands of machines even if running on a low performance machine. On the other hand, it can become unresponsive if installed on a powerful machine with a too heavy load (if it is also use for intense rendering for example). So, it is important you choose the machine for the license server carefully as it may affect the performance of an entire render farm..

IMPORTANT: The *hostid* is usually the MAC address of the machine, but not always. This is because on some machines, the MAC address changes after the machine is restarted. Our `licutils` command automatically detects that this will provide a fixed and proper *hostid*. For this reason it is important and necessary to use the `licutils` command to obtain the *hostid*.

¹ The given *hostid* is only an example, you will get something different.

3 Setting Up and Running the License Server

3.1 Installing the License File

The license will be sent by e-mail in the form of an hexadecimal string. A license looks like this:

```
# Feature name : 3Delight
# Host ID      : e08122074c
# Licenses     : 2 (up to 4 threads per machine)
# Expiration   : none
# Service Exp. : Wed Aug 30 00:00:00 2009

3Delight 2d 1c dc 0e ec d7 a9 1a 7d b9 3b 32 ba 93 f6 7f 77 e0 bc 1f 15 07 b0 fc
```

In this example, the # lines are not necessary for the license to work, they are only use as reminder of the features of the license; you can add your own # lines if you like.

Save the provided string into a ‘license.dat’ file into the root of your installation. If you don’t know the root of the installation, simply inspect the DELIGHT environment variable which points to that specific location (the default installation path on *Windows* platforms is ‘C:\Program Files\3Delight\’).

If you have licenses for more than one product, you can simply concatenate the license, such as:

```
# comments...
3dfs-a 0b 94 66 97 93 0b fc 1e 58 d2 1a d7 7e e8 87 54 dc f9 cc a5 6e 93 56 cc
# comments...
3Delight 2d 1d 40 b6 b7 17 67 99 04 74 b4 f6 93 01 5b 28 07 a4 53 bc 6d bc 00 e5
```

3.2 Starting the License Server - licserver

IMPORTANT: One license server can serve licenses for all platforms, there is no distinction between a license for *Windows* and a license for *Linux*. Additionally, only one license server can be started on a LAN: starting multiple license servers will not work.

On *Windows* systems it is possible to launch the license server through the *Start->All Programs->3Delight* menu, given that the ‘license.dat’ file was installed properly. It is also possible to start it by hand:

```
C:\> licserver "%DELIGHT%/license.dat"
```

On *Linux* systems, the license server has to be started manually. The ‘-d’ options launches the license server in “daemon” mode.

```
% licserver -d $DELIGHT/license.dat
```

3.3 Modifying the Configuration File

If you are running the software in a networked environment, it is necessary to indicate to *3Delight* where the license server is running. This is done by modifying the configuration file. The file is named '`rendermn.ini`' and is located in the root of the installation. Adding the following line is enough to indicate where the license server is located:

```
/3delight/licserver servername
```

Here, *servername* is the name of the machine for which you provided the *hostid*. A network name or an IP address is accepted. Note that this is **not** the "*hostid*". If you are unsure about the name of the license server, log on to the machine and issue the following command in a *DOS* box:

```
C:\> licutils hostname
```

4 How 3Delight Licensing Works in Multi-Processing

3Delight licenses are related to threads or processes and are bound to a machine, not to actual CPUs. So a 4-thread license offers the following flexibility on a given machine:

- Run a single render with four threads working in parallel on a single image.
- Run two different renders (working on two separate images), each one using two threads.
- Run four different renders, each one using one thread working on 4 separate images.

All these options are independent on how many CPUs or Cores are available on the given machine. In practice, to fully use a dual CPUs / dual Core machine, one need a 4-thread license.

As a reminder, all licenses are *floating*; they can be used by any machine in a network. They are also *platform independent*.

NOTE: When running *3Delight* without a license, for testing purposes, a watermark will be displayed. In this form, the renderer cannot be used for commercial work.

5 Troubleshooting

Q:

Why does *3Delight* displays the following message and adds a watermark on the image ?

```
3DL INFO: Please complete the 'rendermn.ini' file. See licensing docs.
```

A:

This happens when the 'rendermn.ini' file doesn't contain the "/3delight/licserver" entry. Please modify that file as explained in [Chapter 2 \[Obtaining a License\]](#), page 3.

Q:

Why does *3Delight* displays the following message and stops the render ?

```
3DL SEVERE ERROR: Unable to contact license server (Connection refused)
3DL INFO: Make sure the license server is running on 'servername'
```

A:

If *servername* is really the name of the machine entered in the 'rendermn.ini' file then probably the license server hasn't been started. If *servername* is not the machine specified in the 'rendermn.ini' file then it might mean that there is another 'rendermn.ini' file that is overriding the one containing the right *servername*. Such a thing might happen if there is, for example, another 'rendermn.ini' file in user's home directory. To assess this, one could set the DL_DUMP_DEFAULTS environment variable and start a render; all loaded 'rendermn.ini' files will then be displayed.

Q:

What do these error messages mean when starting the license server ?

```
unable to bind TCP address
unable to bind UDP address
```

A:

There is most likely another license server process already running on the machine. It needs to be stopped first. Some software firewalls can also cause that kind of error.