

# 12dModel

## Installing *12d Model 15 C1p* and 12d Network CodeMeters

**May 2024**

**12d Solutions Pty LTd**

ACN 101 351 991

PO Box 351 Narrabeen NSW Australia 2101

Australia Telephone (02) 9970 7117 Fax (02) 9970 7118

International Telephone 61 2 9970 7117 Fax 61 2 9970 7118

email [support@12d.com](mailto:support@12d.com) web page [www.12d.com](http://www.12d.com)

## Disclaimer

**12d Model** is supplied without any express or implied warranties whatsoever.

No warranty of fitness for a particular purpose is offered.

No liabilities in respect of engineering details and quantities produced by **12d Model** are accepted.

Every effort has been taken to ensure that the advice given in this manual and the program **12d Model** is correct, however, no warranty is expressed or implied by **12d Solutions Pty Ltd**.

## Copyright

This manual is copyrighted and all rights reserved.

This manual may not, in whole or part, be copied or reproduced without the prior consent in writing from **12d Solutions Pty Ltd**.

Copies of **12d Model** software must not be released to any party, or used for bureau applications without the written permission of **12d Solutions Pty Ltd**.

Copyright (c) 1989-2024 by 12d Solutions Pty Ltd

Sydney, New South Wales, Australia.

ACN 101 351 991

All rights reserved.

# Table of Contents

<b>A Guide to the Notes.....</b>	<b>5</b>
<b>Installing 12d Model 15 Release Version.....</b>	<b>6</b>
Requirements for Installing & Running 12d Model 15 .....	6
12d Model 15 is only 64 bit .....	6
Quick or Detailed Installation Notes.....	6
<b>Quick Installation Notes for 12d Model 15 .....</b>	<b>7</b>
Installing and Uninstalling .....	7
Hardware Locks (Dongles) Supported.....	7
12d Model 15 and CodeMeter Drivers.....	8
Certifying CodeMeters.....	8
CodeMeter Drivers.....	8
For Users with 12d Model 14 Installed.....	9
Setting Up Your User Folder for 12d Model 15 .....	9
Setting Up Your User_Lib Folder for 12d Model 15 .....	9
Setting Up Your env.4d File for 12d Model 15 .....	9
Are You Using a 12d Network Lock? .....	10
Network CodeMeters .....	10
Using a 12d Network CodeMeter for the First Time .....	10
Updating Licenses in a Network CodeMeter.....	10
Documentation and What's New .....	11
<b>Detailed Notes for Installing 12d Model.....</b>	<b>12</b>
Folders Created by the Installation .....	26
C:\Program Files\12d\12dmodel\15.00.....	26
C:\12d\15.00 .....	27
Icons Created by the Installation.....	28
Copying Existing User, User_Lib and env.4d .....	28
End of the Notes for Installing 12d Model 15.....	29
<b>Certifying CodeMeters.....</b>	<b>30</b>
Certifying CodeMeters from 12d Model.....	30
Automatically Certifying CodeMeters from 12d Model.....	32
Certifying CodeMeters Using Control Center .....	33
Installing the CodeMeter Drivers Separately.....	35
<b>Documentation .....</b>	<b>40</b>
12d Model Reference Manual .....	40
12d Model Programming Language Manual .....	42
12d Field File Format.....	43
12dxml File Format.....	43
12da File Format .....	44
<b>What's New in 12d Model 15.....</b>	<b>45</b>
What's New pdf.....	45
What's New Summary of All Additions.....	45
What's New Summary of Additions Sorted by Sub-Version .....	45
<b>12d Model Training.....</b>	<b>46</b>
<b>Errors Installing and Authorising .....</b>	<b>47</b>
12d Model XX Not Authorising .....	47
Licence Expiry Warning .....	48
Dongle Missing .....	49
<b>Network CodeMeters .....</b>	<b>51</b>
Definitions and Guide to the Network Notes.....	53
Installing CodeMeter Drivers.....	55
Setting up a 12d Network CodeMeter.....	58
dongles.4d and nodes.4d .....	65

Modifying the dongles.4d file .....	65
Installing a nodes.12d15n File.....	76
<b>CodeMeter Control Center &amp; WebAdmin .....</b>	<b>79</b>
Stopping & Starting the CodeMeter Runtime Server .....	80
CodeMeter Runtime Server - Control Centre.....	81
CodeMeter Runtime Server - WebAdmin .....	84
Port Address for CodeMeter Communication .....	86
Port Address - WebAdmin 6 .....	86
Port Address - WebAdmin 5 .....	87
Certifying CodeMeters .....	88
Certifying CodeMeters Using WebAdmin .....	89
Time Servers for Certified Time .....	95
Monitoring and Cancelling Licenses .....	97
Getting Info on CodeMeters on a Particular Server - WebAdmin 6 .....	98
Monitoring and Cancelling Licenses - WebAdmin 6.....	100
Getting Info on CodeMeters on a Particular Server - WebAdmin 5 .....	105
Monitoring and Cancelling Licenses - WebAdmin 5.....	107
Updating Licenses in Network CodeMeters.....	111
Generating the Context File (.WibuCmRac).....	112
Errors Updating the Network CodeMeter .....	118
Replacing an Existing Network CodeMeter .....	119
End of the Notes on Network CodeMeters .....	119
Which Version of WebAdmin? .....	120

# 1 A Guide to the Notes

These notes contain the information for:

- (a) Installing the release version of **12d Model**

**12d Model** needs to be installed on each computer it is going to run on.

For notes on installing **12d Model** for the first time, or on a computer that is already running **12d Model**, go to [2 Installing 12d Model 15 Release Version on page 6](#)

- (b) Setting up if you are using Network licences


By default when **12d Model** is installed it is set up for users with a **Local (single user or stand alone) CodeMeter** that only allows **12d Model** to be run on the computer with the **Local CodeMeter** attached to it. With a **Local CodeMeter**, if **12d Model** is to be run on another computer with that **Local CodeMeter** then the **Local CodeMeter** must be **moved** to the new computer. And **12d Model** will stop running on the computer that no longer has the Local CodeMeter attached to it.

To allow **12d Model** to run on a number of computers without having to move a **CodeMeter** to different computers, **12d Model** has network licences and for those cases, a **NETWORK CodeMeter** is used.


**12d Local CodeMeter also referred to as a Single User or Standalone CodeMeter**

**Stubby USB**


with end cap and ring



without end cap and ring




**Long USB**



**Note:** the end cap and ring are cosmetic only

**12d Network CodeMeter**

**Silver USB**



For notes on setting up a **Network CodeMeter**, go to [10 Network CodeMeters on page 51](#)

## 2 Installing 12d Model 15 Release Version

### 2.1 Requirements for Installing & Running 12d Model 15

Before Installing and running **12d Model 15**, you need the following:

- (a) You must have **Administrator** privileges to install **12d Model**
- (a) Approximately 2 Gigabytes of disc space is required for the installation to succeed.
- (b) A **12d Model CodeMeter** or **Wibu** Lock for your computer  
If **12d Model 15** is already running on your computer, the **CodeMeter** (or **Wibu**) lock you already have will work with the new version of **12d Model 15** once you have a *nodes* file for **12d Model 15**.  
If **12d Model** has **NOT** been running on your computer then **DO NOT ATTACH THE LOCK TO YOUR COMPUTER** until after the CodeMeter/Wibu drivers have been installed as part of the installation procedure.
- (c) An email with the **12d Model 15** authorization file **nodes.12d15n** attached, or a folder with the **12d Model 15** authorization file **nodes.12d15n** or **nodes.4d** in it.
- (d) This document which has the internet links to the required executables and files
- (e) Access to the internet to download the required executables and files

Please check that you have all the above items before commencing the installation.

Also note that:

- (a) **12d Model 15** will **not install** on Windows XP or Windows Vista.
- (b) **12d Model 15** will not run with the brand **Hardlock** locks which were used for **12d Model 10** and earlier versions. They were wither parallel locks or purple USB locks.  
If you have a **12d Hardlock** lock, please contact your **12d Model Reseller** to obtain a replacement **CodeMeter** lock.
- (c) **12d Field** will only run with **CodeMeter** locks  
If you are running **12d Field** and have a **12d Wibu** or **12d Hardlock** lock, please contact your **12d Model Reseller** to obtain a replacement **CodeMeter**.
- (d) A three-button mouse is essential to efficiently use **12d Model** on the desktop.

### 2.2 12d Model 15 is only 64 bit

Microsoft has a 64 bit Windows and an older 32 bit Windows operating system but **12d Model 15** is only being released for 64-bit Windows.

### 2.3 Quick or Detailed Installation Notes

For abbreviated instructions and links for Installing the Release Version of **12d Model**, go to [3 Quick Installation Notes for 12d Model 15 on page 7](#).

For **detailed instructions** and links for Installing the Release Version of **12d Model**, go to [4 Detailed Notes for Installing 12d Model on page 12](#).

## 3 Quick Installation Notes for 12d Model 15

This chapter contains abbreviated notes for Installing **12d Model 15**, and the links to download all the files required for the installation.

For more detailed notes on installing **12d Model**, see [4 Detailed Notes for Installing 12d Model on page 12](#).

**Important Note:** 12d Model 15 will not install on Windows XP or Vista.

### 3.1 Installing and Uninstalling

- (a) You need to be Administrator to install **12d Model 15** and **CodeMeter** and/or **Wibu** drivers
- (b) **12d Model 15** is **64-bit only** - there is no 32-bit version.
- (c) You can have earlier versions of **12d Model**, both 64-bit and a 32-bit, on your computer at the same time as **12d Model 15**.

- (d) If **12d Model 15** is already installed on your computer then it will be replaced.

The **12d Model 15 Installer** checks for an existing matching **12d Model 15** and if one exists, it displays the version number and asks *if you want to Uninstall it*.

If you say **No** then the **12d Model 15** Install will terminate, leaving the existing **12d Model 15**.

**Important Note**

The **Uninstaller** deletes everything in the **Program Files\12d\12dmodel\15.00** folder so **do not modify** any of those files as they will be deleted by any future installs of **12d Model 15**.

Any modification that you make to these files must go into **User** or **User\_Lib**.

- (e) The Uninstaller will not delete any of the training material loaded into the folders **12d\15.0\training** and **12d\15.0\courses**.

The **12d Model 15 Installer** will overwrite any files of the same name in those folders.

- (f) **Do not attach the CodeMeter or Wibu locks before installing the drivers**

The **12d CodeMeter** or **12d Wibu** locks (dongles) must **NOT be attached** to the computer before the CodeMeter/Wibu drivers are installed (see [3.5 CodeMeter Drivers on page 8](#)).

### 3.2 Hardware Locks (Dongles) Supported

- (a) The brand **Hardlock** locks **CAN NOT** be used for **12d Model 15**.
- (b) **12d Field** is only available in **12d Model 15** for **CodeMeters**.
- (c) **Network CodeMeters** only support **12d Model 11** and above.
- (d) The older **Wibu** locks (non-CodeMeter) are supported for **12d Model 15** but are being phased out.

## 3.3 12d Model 15 and CodeMeter Drivers

The installer for **12d Model** installs both **12d Model15** and the appropriate **CodeMeter Drivers** which are needed to access the **12d Model** licences.

**The 12d Model Install for 64 bit Window 10 - approximately 1 Gb**

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_Model\\_15\\_C1p\\_64\\_Setup.exe](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_Model_15_C1p_64_Setup.exe)

For notes on installing the exe, see [4 Detailed Notes for Installing 12d Model on page 12](#).

## 3.4 Certifying CodeMeters

A **CodeMeter** needs to be Certified **over the Internet** every two months. So you need to have access to the Internet for the first time you start up **12d Model** with a **CodeMeter** and then at least every two months.

Once **12d Model** is installed, there is an environment variable **AUTO\_CERTIFY\_DONGLE\_4D** that can set so that **12d Model** automatically certifies the **CodeMeter** when required.

For notes in certify CodeMeters, see [5 Certifying CodeMeters on page 30](#).

Please contact your **12d Model Reseller** if you have any problems Certifying CodeMeters.

## 3.5 CodeMeter Drivers

If you need to install the **CodeMeter** drivers separately to using the **12d Model** install, they can be installed with:

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/CodeMeterRuntime\\_7\\_30a.exe](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/CodeMeterRuntime_7_30a.exe)

For notes on installing the CodeMeter Drivers, see [5.4 Installing the CodeMeter Drivers Separately on page 35](#).



## 3.6 For Users with 12d Model 14 Installed

### 3.6.1 Setting Up Your User Folder for 12d Model 15

The folder **User** contains the files that you have modified to replace those that **12d Model** installs in the folder **Set\_ups**. For example, your own *names.4d* or *linestyl.4d*.

So if you have files in your **User** folder in **12d Model 14**, you will probably also want to use many of them with **12d Model 15**.

In **12d Model 14**, the default place for **User** is **c:\12d\14.00\User** but it could also be pointed to by the environment variable **USER\_4D**.

For **12d Model 15**, you need to create a new **User** folder and copy to it any files from the **12d Model 14 User** folder that you want to use with **12d Model 15**. You may need to copy the whole of the **12d Model 14 User** folder to the new area.

The default location for the **12d Model 14 User** folder is **c:\12d\14.00\User** but if the environment variable **USER\_4D** was used to point to a different location for the **User** folder in **12d Model 14** then you will probably want to use a non-standard **User** folder for **12d Model 15**. If that is the case then you will need to change **USER\_4D** in the **env.4d** file for **12d Model 15** to point to your **User** folder for **12d Model 15**.

### 3.6.2 Setting Up Your User\_Lib Folder for 12d Model 15

The folder **User\_Lib** contains your own library files and if you had files in a **User\_Lib** folder in **12d Model 14**, you will probably also want to use many of them with **12d Model 15**.

In **12d Model 14**, the default place for **User\_Lib** is **c:\12d\14.00\User\_Lib** but it could also be pointed to by the environment variable **USER\_LIB\_4D**.

For **12d Model 15**, you need to create a new **User\_Lib** folder and copy to it any files from the **12d Model 14 User\_Lib** folder that you want to use with **12d Model 15**. You may need to copy the whole of the **12d Model 14 User\_Lib** folder to the new area.

The default location for the **12d Model 14 User\_Lib** folder is **c:\12d\14.00\User\_Lib** but if the environment variable **USER\_LIB\_4D** was used to point to a different location for the **User\_Lib** folder in **12d Model 14** then you will probably want to use a non-standard **User\_Lib** folder for **12d Model 15**. If that is the case then you will need to change **USER\_LIB\_4D** in the **env.4d** file for **12d Model 15** to point to your **User\_Lib** folder for **12d Model 15**.

### 3.6.3 Setting Up Your env.4d File for 12d Model 15

The file **env.4d** contains environment variables that are used to customise **12d Model**.

An **env.4d** file is installed in the **Set\_ups** folder when **12d Model** is installed and if a user wants to make any modifications to any of the environment variables in **env.4d**, then the modified **env.4d** file is placed in the **User** folder.

So if you have an **env.4d** file in your **User** folder in **12d Model 14**, you will probably also want to use it **12d Model 15**.

The default location for your modified **env.4d** file in **12d Model 14** is in your **User** folder for **12d Model 14** so for **12d Model 15**, you need to copy this **env.4d** file to your **User** folder in **12d Model 15**.

### 3.6.4 Are You Using a 12d Network Lock?

If you are using a **12d Network Lock** (**CodeMeter** or **Wibu**) for **12d Model 15**, then the file **dongles.4d** which is in the **User** folder contains the information to tell **12d Model** that it has to search for a network lock, and possibly which computer the network lock is on.

So if you are using a **12d Network Lock** for **12d Model 14**, you will need to copy your **12d Model 14 dongles.4d** file to the **12d Model 15 User** folder.

## 3.7 Network CodeMeters

### 3.7.1 Using a 12d Network CodeMeter for the First Time

If you are setting up **12d Model** to use a **12d Network CodeMeter** for the first time, please read the section [10 Network CodeMeters on page 51](#).

### 3.7.2 Updating Licenses in a Network CodeMeter

If you are modifying the virtual **12d Model** dongle within a Network CodeMeter (for example increasing the number of licenses), go to section [11.5 Updating Licenses in Network CodeMeters on page 111](#).

## 3.8 Documentation and What's New

The links for downloading documentation on **12d Model** are given in [6 Documentation on page 40](#).

The links for downloading documentation, power points and videos on what is new in **12d Model 15** are given in [7 What's New in 12d Model 15 on page 45](#).

This ends the Quick Installation notes for **12d Model 15**.

The rest of the Chapters in this document are:

[4 Detailed Notes for Installing 12d Model on page 12](#)

[5 Certifying CodeMeters on page 30](#)

[6 Documentation on page 40](#)

[7 What's New in 12d Model 15 on page 45](#)

[8 12d Model Training on page 46](#)

[9 Errors Installing and Authorising on page 47](#)

[10 Network CodeMeters on page 51](#)

[11 CodeMeter Control Center & WebAdmin on page 79](#)

## 4 Detailed Notes for Installing 12d Model

These are the complete notes are for installing the **Release** version of **12d Model 15** using CodeMeter locks. If you are using the older Wibu locks, please contact your Reseller for the installation notes.

**A. Disk Space required for installing **12d Model 15****

Approximately **3 Gigabytes** of disc space will be required for the installation to succeed.

**Before** installing **12d Model**, it is best to reboot the computer.

Your login must have **Administrator** privileges.

**B. Do not attach the 12d Model locks before installing dongle drivers**

The **12d CodeMeter** lock must **NOT be attached** to the computer before the CodeMeter drivers are installed during the **12d Model** installation.

**C. Installing**

The following **Steps** will take you through the combined installation **12d Model** and the CodeMeter drivers, and the setting up of the **nodes.4d** file.

Continue to [Step 1. Installing 12d Model 15 Release Version and CodeMeter Drivers on page 13.](#)

## Step 1. Installing 12d Model 15 Release Version and CodeMeter Drivers

The installer for **12d Model 15** is downloaded from the internet.

(a) Installing **12d Model** and CodeMeter Drivers from the Downloaded Files:

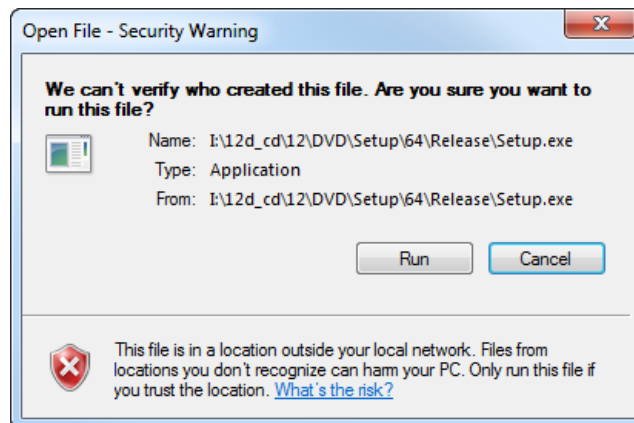
To download the installer for **12d Model**, click on

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_Model\\_15\\_C1p\\_64\\_Setup.exe](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_Model_15_C1p_64_Setup.exe)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

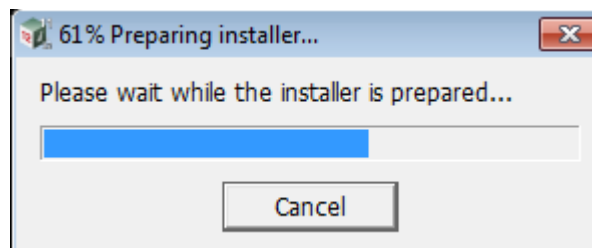
Once the installer is downloaded, click on it (or run it) and the **12d Model** installation begins.

You may get a message warning you about not being able to verify who created the file:



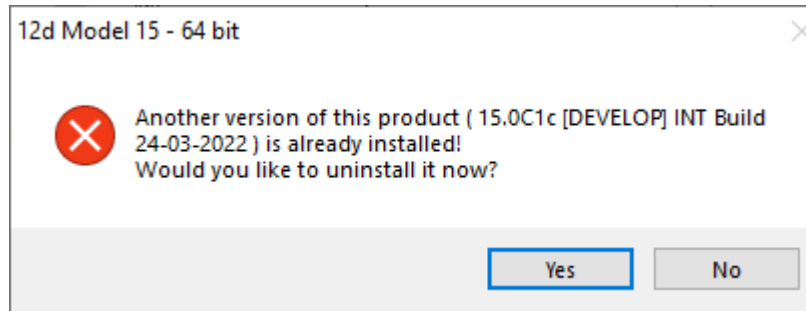
Click on **Run** so that the installation can begin.

The **12d Model 15** installation starts by unpacking the information in the installation exe and then the installation begins.



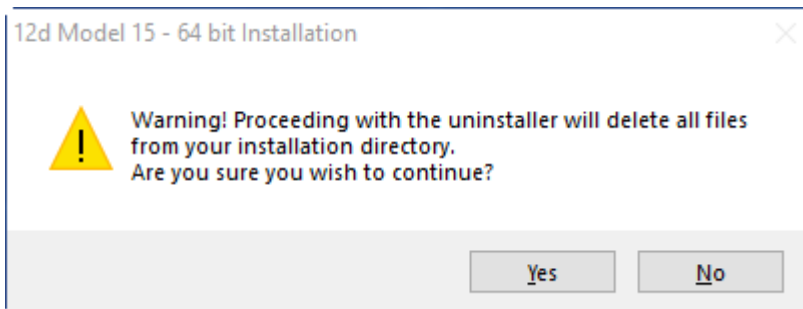
If the Installer detects there is an existing version **12d Model 15** already installed, you will be asked if the Installer can **uninstall the existing version**. Unless this is done, the installation can not proceed.

**Note:** The uninstall deletes everything in the **Program Files\12d\12dmodel\15.00** folder so you should never modify any of those files.



Click on **Yes** to continue.

You then receive a **Warning** that the files will be deleted.



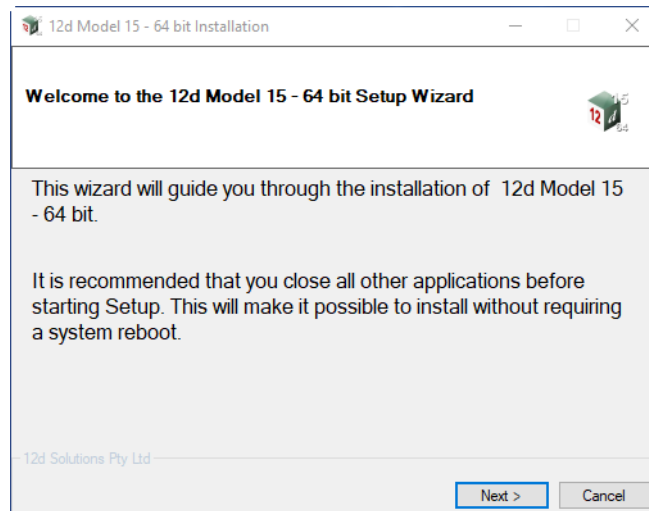
Click on **Yes** to continue.

All the files in the **Program Files \12d\12dmodel\15.00** folder will then be deleted, and the **12d Model xx** entry removed from the Windows Registry.

The installation of the new **12d Model** can now begin and the **Welcome** screen is displayed.

#### **Welcome**

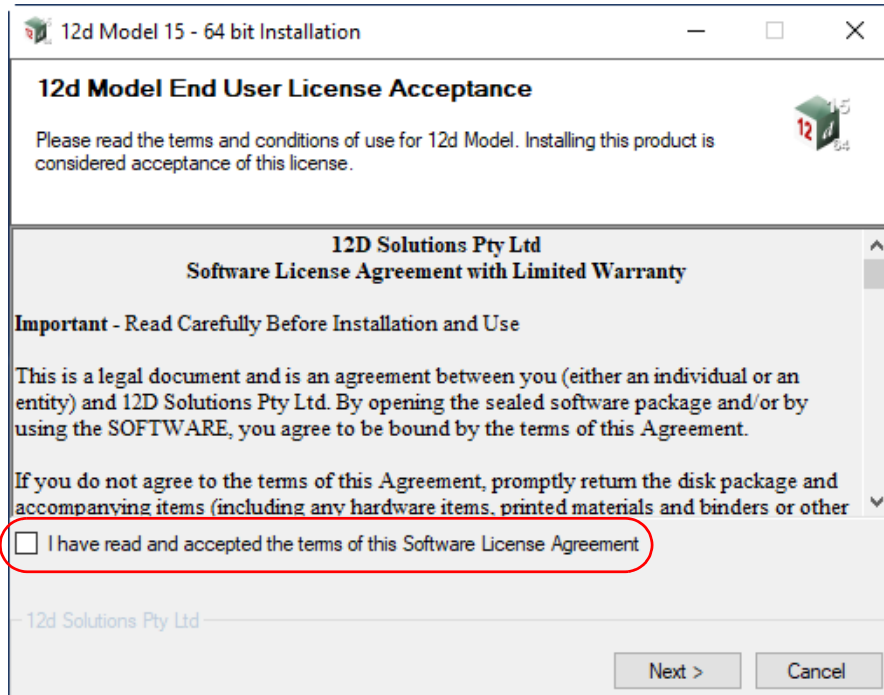
#### *Welcome message*



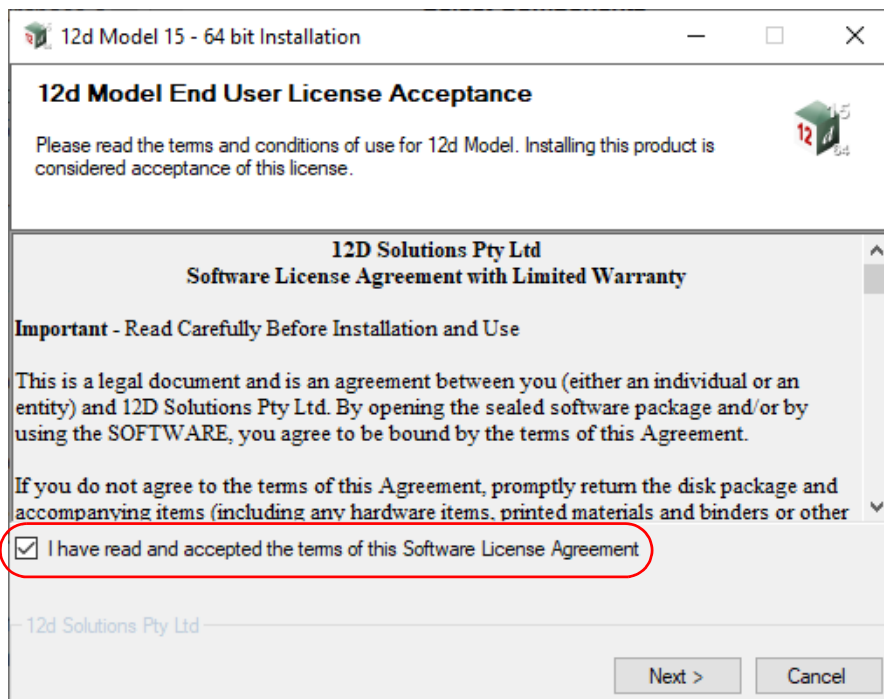
Select **Next >** to continue with the installation

## Software License Agreement

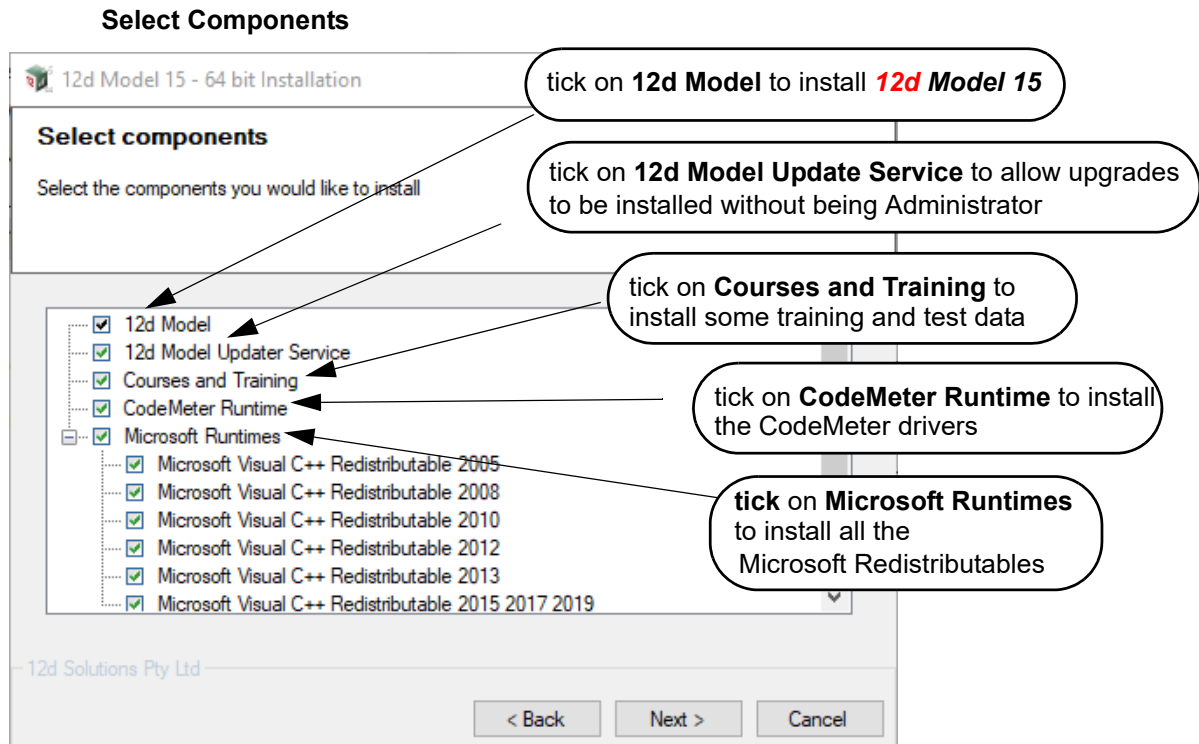
12d Solutions license agreement



If you agree with the License conditions, tick on ***I have read and accept the terms of the Software License Agreement.***



Select ***Next >*** to continue with the installation



Tick on **12d Model** to install **12d Model**.

Tick on **12d Model Updater Service** to allow the installation of **12d Model** upgrades without being logged in as **Administrator**.

Tick on **Courses and Training** to install training and test data.

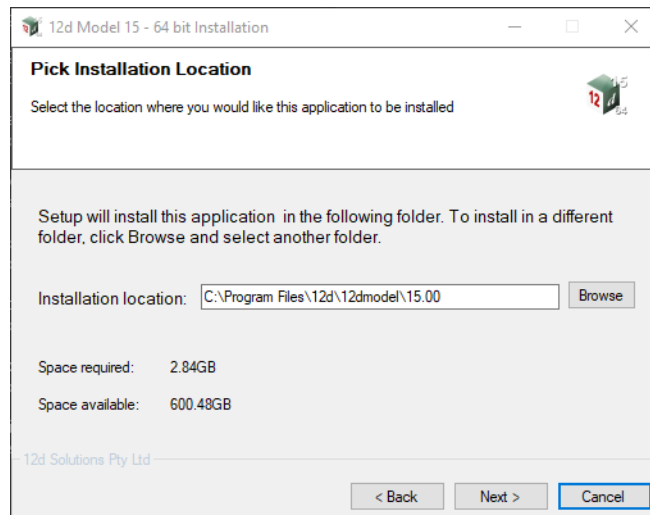
Tick on **CodeMeter Runtime** to install the latest CodeMeter drivers.

Tick on **Microsoft Runtimes** if this is the first time you have installed **12d Model 15** on this computer, and it will tick on all the **Microsoft Visual C++ Redistributables**.

Select **Next >** to continue with the installation



## Installation Location



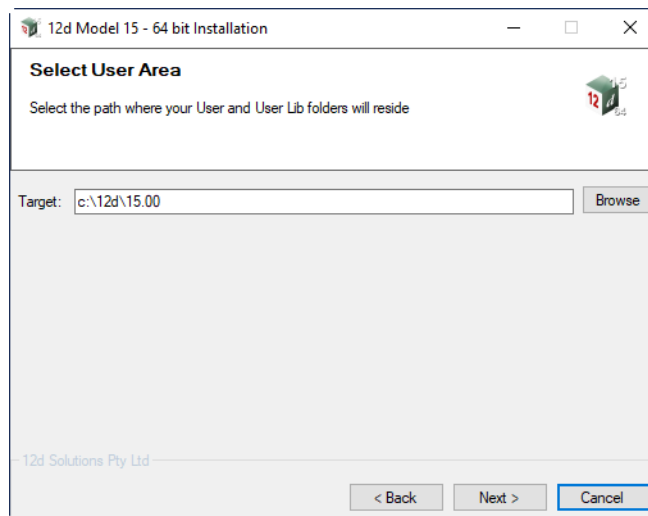
Continue with the default installation folder for the software:

*C:\Program Files\12d\12dmodel\15.0*

or click on **Browse** to browse to another folder for the installation

Select **Next >** to continue with the installation

## User Area



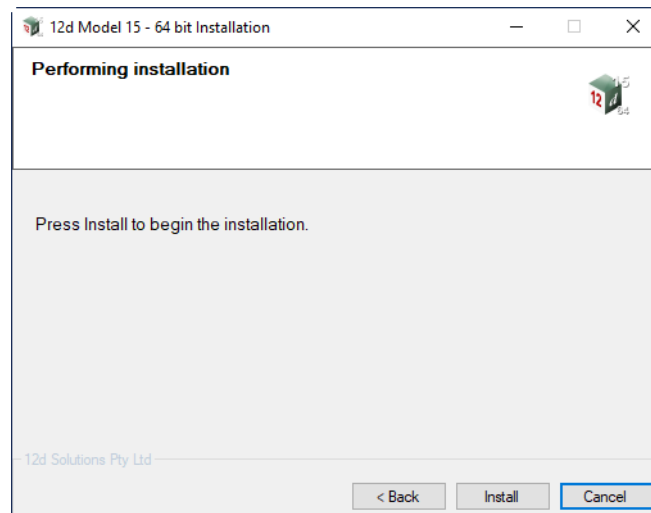
Continue with the default folder for the **User Area** for the software:

*c:\12d\15.0*

or click on **Browse** to browse to another folder for the User Area.

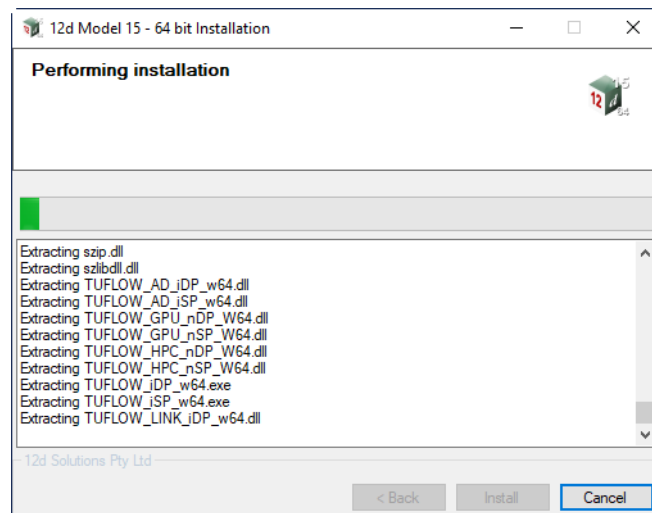
Select **Next >** to continue with the installation

## Ready to Install

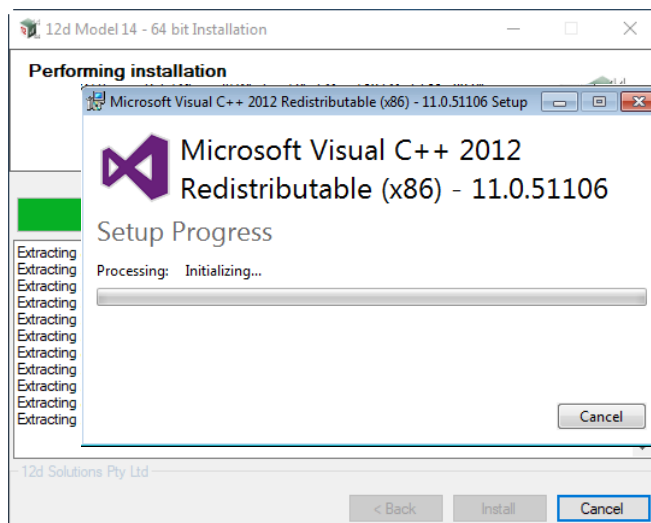


Click on **Install** to begin the actual installation

The software will be copied and installed onto the computer.

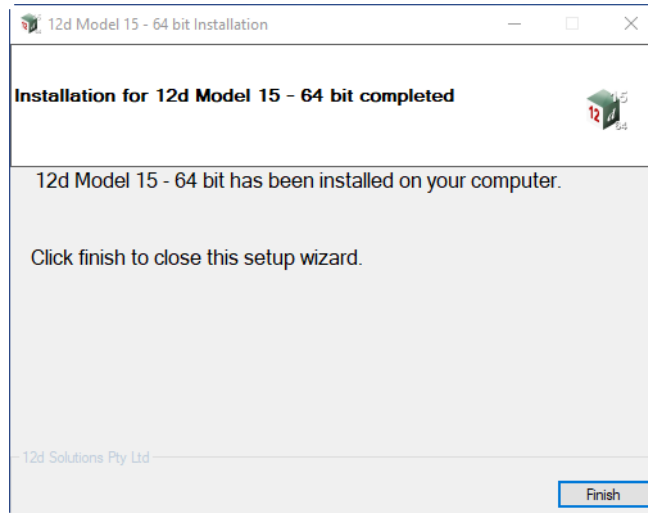


The Microsoft C++ Redistributables will be automatically installed



**DO NOT CLICK** on anything on the **Microsoft Redistributable** panels, especially **Cancel**. The panels will disappear by themselves.

### Installation Complete



End of the installation.

Select **Finish** to complete the installation

This completes the installation of the **12d Model** software and **CodeMeter** drivers.

If you have not used a CodeMeter hardware lock on the computer before, then the CodeMeter can now be attached to the computer. Go to [Step 2. Attach the Dongle on page 19](#).

If you have already been using a CodeMeter hardware lock on the computer then go to [Step 3. SPECIAL NOTE ON CERTIFYING CODEMETERS on page 21](#).

### Step 2. Attach the Dongle

The **12d Model** CodeMeter hardware lock can now be attached to the computer.

**For USB dongles:**

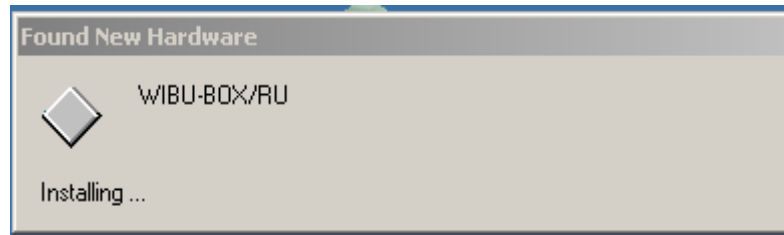
**Warning: you must have System Administration rights the first time you attach a USB dongle to any USB port:**

When a USB dongle is attached for the first time to any USB port, Windows will detect that it is new hardware and needs to load the dongle drivers for that USB port - this will require System Administration rights.

Since the dongle drivers have already been loaded onto your computer, when the USB dongle is attached to a new USB port, it will be recognised as new hardware



and Windows should automatically install the correct dongle driver.



**IMPORTANT NOTE IF THE CODEMETER IS NOT RECOGNISED:**

If the CodeMeter hardware lock is not recognised you get the **Found New Hardware** screen



please go to the section on how to find the Wibu drivers

**NOTE** - even though your CodeMeter is working on one USB port, if you try and attach the CodeMeter to a new USB port, the CodeMeter drivers will need to be installed for the new USB port. You will need System Administration rights to install the CodeMeter drivers on the **new** USB port.

For **12d Model** to run, the CodeMeter must be attached to the USB port at all times, otherwise **12d Model** will stop and ask you to save and exit.

### Step 3. SPECIAL NOTE ON CERTIFYING CODEMETERS

The **12d CodeMeters** must communicate over the Internet with a **Wibu Time Server** every two months to check that there is no problem with the **CodeMeter** that your **12d Model** license is using. This is called **Certifying** the **CodeMeter**.

For Certification to occur, a computer that can access the **CodeMeter** must also have access to the Internet to run the **Certification**.

One month before the end of the two month period, **12d Model** brings up the **Certify CodeMeter Dongle** panel which gives the number of days, minutes and seconds remaining until Certification is required.

If you are using a new CodeMeter from your **12d Model Reseller**, then it will usually come already Certified.

For more information on Certifying, see [5 Certifying CodeMeters on page 30](#).

**12d Model** will not function without an authorisation file called **nodes.4d**.

The final step is to install and test the **nodes** file. Go to [Step 4. Installing the Nodes.4d file on page 22](#).

#### Step 4. Installing the **Nodes.4d** file


**12d Model** will not create new projects or open existing projects without an authorisation file called **nodes.4d** with valid information in it.

The information inside **nodes.4d** controls

- (a) **which 12d dongles** are authorised to run **12d Model**
- (b) what **version** of **12d Model** will run for a dongle
- (c) what **modules** are authorised to run for a particular 12d dongle

To authorise **12d Model** to run with **your 12d dongles**, a file called **nodes.12dxxn** where **xx** is the **12d Model** version number, will have been emailed to you by your local **12d Model** Reseller.

For example, for **12d Model 15** the file will be called **nodes.12d15n**

Subject: 12D Auth file for 12D Solutions - Lee; Product 12d Model - 5c2d47013c -  
Attachments:  nodes.12dXXn (11 KB)

Nodes file for : 12D Solutions - Lee  
- 5c2d47013c -

The authorization file for 12d Model - is attached to this message.

The self-install procedure which follows is for this one workstation and requires 12dmodel installed.  
After 12d Model version **xx** is installed, please double click on the file attachment [nodes.12dXXn] & to open it and 12d will guide you through.

If this succeeds you do not need to read further.

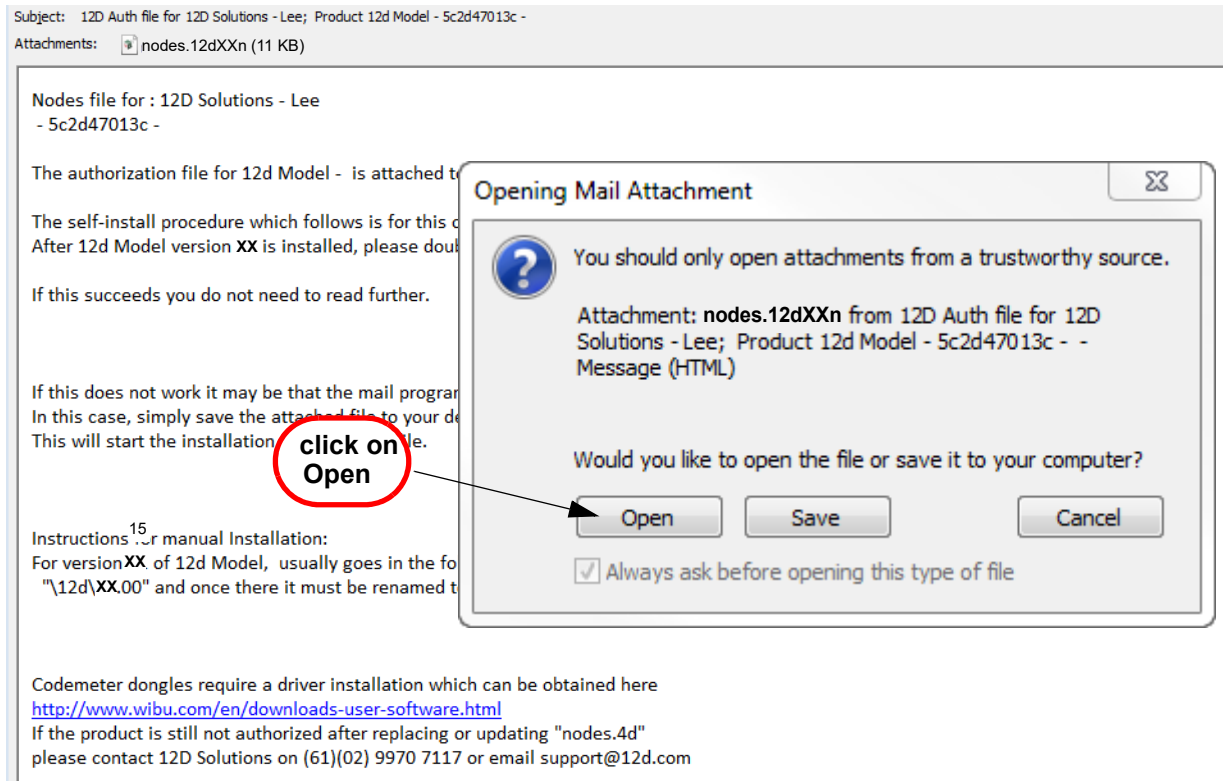
If this does not work it may be that the mail programme does not allow you to run attachments.  
In this case, simply save the attached file to your desktop and open (from the right-mouse menu or by double-click).  
This will start the installation for the nodes file.

Instructions for manual Installation:  
For version **xx** of 12d Model, usually goes in the folder  
"12d\XX.00" and once there it must be renamed to "nodes.4d"

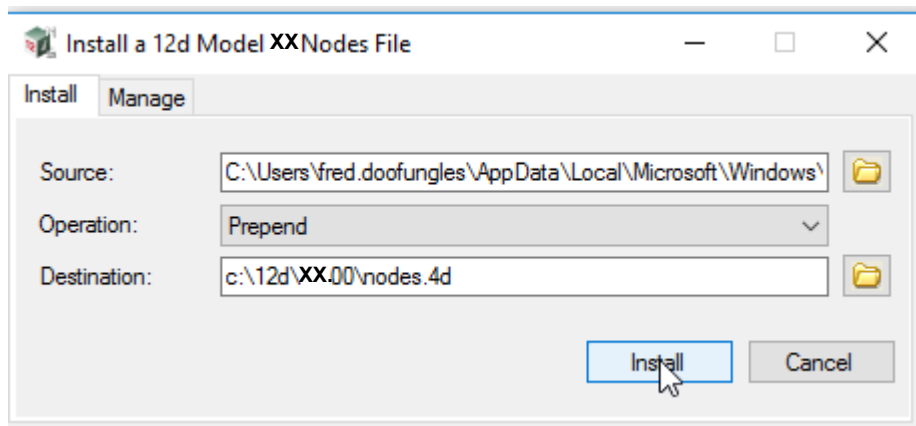
Codemeter dongles require a driver installation which can be obtained here  
<http://www.wibu.com/en/downloads-user-software.html>  
If the product is still not authorized after replacing or updating "nodes.4d"  
please contact 12D Solutions on (61)(02) 9970 7117 or email support@12d.com

Installing **12d Model xx** on a computer sets up a *Windows* file association so that a **nodes.12dxxn** file is recognised and brings up the **Install a 12d Model xx Nodes File** panel which is used to install a **nodes.4d** file in the correct location.

In the email, double click on the files **nodes.12dxxn** and the **Opening Mail Attachment** panel comes up.



Click on **Open** and then the **Install a 12d Model xx Nodes File** panel appears



The choices for **Operation** are:

**Prepend** - if a **nodes.4d** file already exists, the information in the **nodes.12dXXn** file is added to the beginning of the existing nodes file. A backup up copy of the existing **nodes.4d** is created.

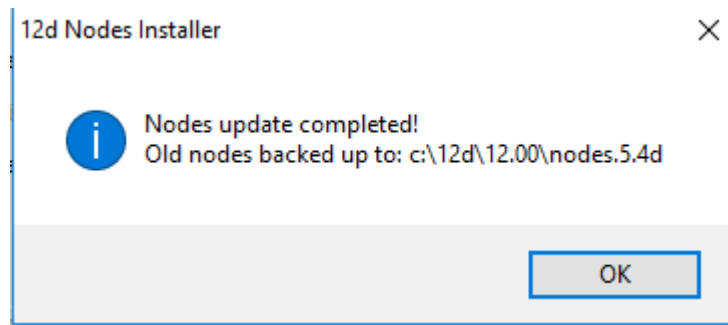
**Replace** - if a **nodes.4d** file already exists, it is replaced by a new **nodes.4d** file with the information in the **nodes.12dxxn** file in the new nodes file. A backup copy of the existing **nodes.4d** is created.

**Append** - if a **nodes.4d** file already exists, the information in the **nodes.12dxxn** file is added to the end of the existing nodes file. A backup copy of the existing **nodes.4d** is created.

Select **Replace**, **Append** or **Prepend** and then click **Install**.

The new/updated **nodes.4d** file is created in the **Destination** folder (default is **C:\12d\lx.00**) and

if a **nodes.4d** file already existed, a backup copy of it is made.



**Note** - if you don't have the file **nodes.12dxxn** attached to an email but instead have the file in a folder accessible from your computer, then you can do the following:

If there is a **nodes.12dxxn** file, double click on that file and the **Install a 12d Model Nodes File** panel should appear and you continue as per the instructions above.

If that doesn't work, start up **12d Model xx** and click on the **Nodes.4d** button at the bottom of the **Open a Recent Project** panel. This will also bring up the **Install a 12d Model Nodes File** panel and you can browse for the **nodes.12dxxn** file in the **Source** panel field. You can then continue as per the instructions above.

**CONGRATULATIONS - 12d Model** has now been successfully installed.

The folders and icons that are created in the installation are given in the sections:

[4.1 Folders Created by the Installation on page 26](#)

[4.2 Icons Created by the Installation on page 28,](#)

If **12d Model** did **not** install correctly and an **Authorization Error** panel came up, go to the section, [9 Errors Installing and Authorising on page 47](#), of these notes.

To obtain documentation for **12d Model**, go to [6 Documentation on page 40](#).

#### **Expanded Important Note on Nodes.12d15n and Nodes.4d**

The **12d Model 15 nodes.12d15n** file will normally be emailed to you.

During the installation of **12d Model 15**, an association is created for files ending in **.12d15n** so after the installation, opening the **nodes.12d15n** on the email will bring up the **Install a 12d Model Nodes File** program which can copy the information in the **nodes.12d15n** file to the required area (normally C:\12d\15.00) and **nodes.4d** file.

If you do not have the **nodes.12d15n** attached to an email but instead have it in a folder and have installed **12d Model 15**, double clicking on the **nodes.12d15n** file will also bring up the **Install a 12d Model Nodes File** program which can copy the information in the **nodes.12d15n** file to the required area (normally C:\12d\15.00) and **nodes.4d** file.

Or if the **12d Model 15** icon is clicked on, the **Open a Recent Project** panel comes up and clicking



on the **Nodes** button will also bring up the **Install a 12d Model Nodes File** program which can copy the information in the *nodes.12d15n* file to the required area (normally C:\12d\15.00) and **nodes.4d** file

Please **do not change** the **name** of the created **nodes.4d** file. **12d Model** will only search for an authorization file called **nodes.4d**.

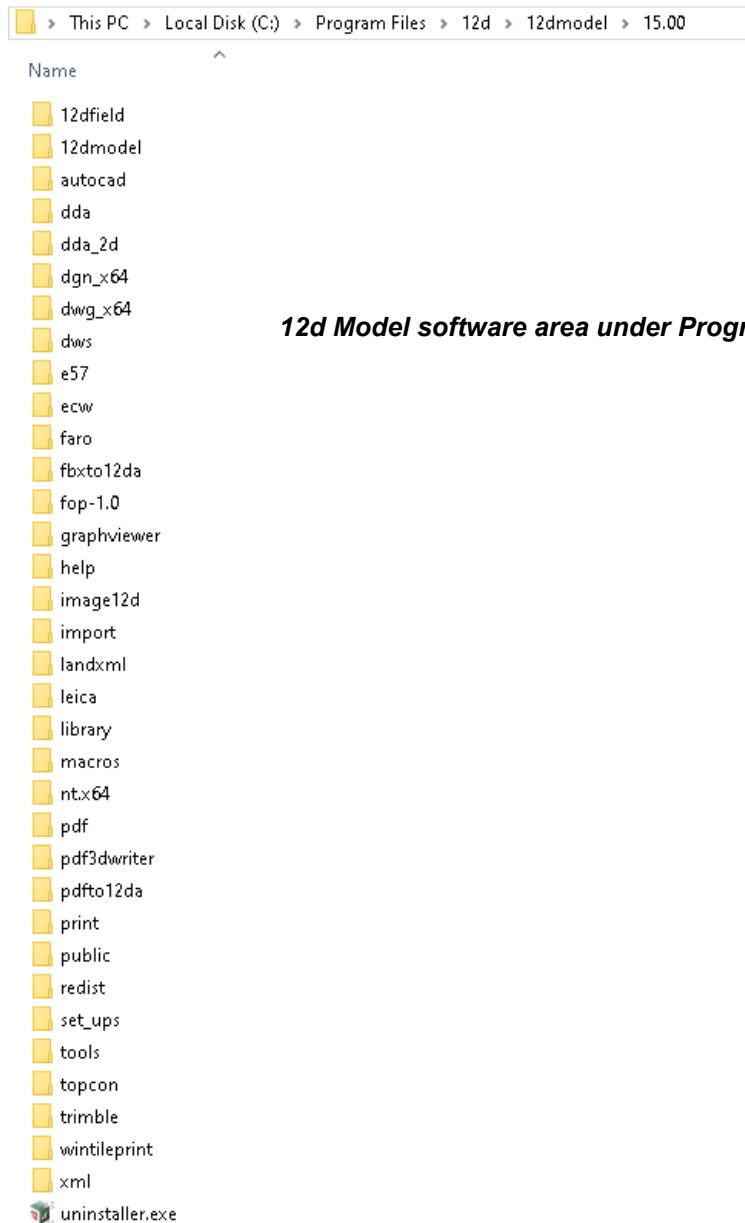
## 4.1 Folders Created by the Installation

### 4.1.1 C:\Program Files\12d\12dmodel\15.00

The **12d Model** installation loads the **12d Model software** into the folder

C:\Program Files\12d\12dmodel\15.00

**12d Model** users normally only have **read** access to the **Program Files** folders.



**12d Model software area under Program Files**

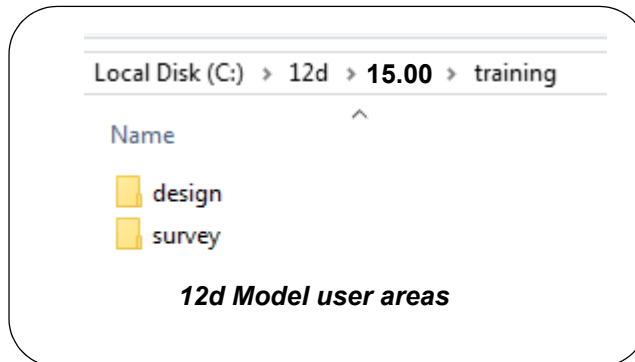
## 4.1.2 C:\12d\15.00

The **12d Model** installation also creates the folder:

C:\12d\15.00

which during the installation is given read/write access for the user.

If the **Courses and Training** component was ticked, then the installation will place some training and testing data in the folders **design** and **survey** in the folder **12d\15.00** (or the folder you selected)



The folder **12d\15.00** is also the default folder where the **nodes.4d** file with **12d Model 15** authorisations in it is installed:

C:\12d\15.00\nodes.4d

and is also the default area where a user creates their own subfolders **User** and **User\_Lib** for their user configurations of **12d Model**.

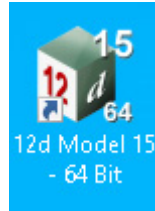
### Warning

An Uninstall will **NOT** delete any of the training material loaded into **12d\15.0\training** and **12d\15.0\courses** by a previous installation.

The **12d Model 15** Install will overwrite any files of the same name in these areas.

## 4.2 Icons Created by the Installation

The installation loads the appropriate components and creates the **12d Model 15** icon



*icon for 12d Model 15 exe*

The **12d Model 15** icon fire up **12d Model** and attaches to the folder 12d\15.00.

## 4.3 Copying Existing User, User\_Lib and env.4d

If you have **12d Model 14** installed on your computer, then you will probably want the files in the folders **User** and **User\_Lib**, and **env.4d** to be used for **12d Model 15**.

- (a) The folder **User** contains your files that are to replace those that **12d Model** installs in *Set\_ups* (e.g. *names.4d*, *linestyl.4d*) and if you already have some, you will probably also want to use them for **12d Model 15**.

For **12d Model 14**, the default place for **User** is *c:\12d\14.00\User* but it could also be pointed to by the environment variable **USER\_4D**.

If there is an existing **User** folder, you need to create a new **User** folder for **12d Model 15** and copy to it any files that you want for **12d Model 15**.

The default place for the new **User** in **12d Model 15** is *c:\12d\15.00\User* but if **USER\_4D** in your **V14 env.4d** was used to point to your **V14 User** then you will need to change **USER\_4D** in your **V15 env.4d** to point to your **V15 User** folder

You may need to copy the whole of **User** to the new area.

- (b) The folder **User\_Lib** contains your own library files and you will probably also want to use them for **12d Model 15**.

For **12d Model 14**, the default place for **User\_Lib** is *c:\12d\14.00\User\_lib* but it could also be pointed to by the environment variable **USER\_LIB\_4D**.

If there is an existing **User\_Lib** folder, you need to create a new **User\_Lib** folder for **12d Model 15** and copy to it any files that you want for **12d Model 15**.

The default place for the new **User\_Lib** in **12d Model 15** is *c:\12d\15.00\User\_Lib* but if **USER\_LIB\_4D** in your **V14 env.4d** was used to point to your **V14 User\_Lib** then you will need to change **USER\_LIB\_4D** in your **V15 env.4d** to point to your **V15 User\_Lib** folder

You may need to copy the whole of **User\_Lib** to the new area.

- (c) Setting Up Your **env.4d** File for 12d Model 14

The file **env.4d** contains environment variables that are used to customise **12d Model**.

An **env.4d** file is installed in the *Set\_Ups* folder when **12d Model** is installed and if a user wants to make any modifications to any of the environment variables in **env.4d**, then the modified **env.4d** file is placed in the **User** folder.

So if you have an **env.4d** file in your **User** folder in **12d Model 14**, you will probably also

want to use it **12d Model 15**.

The default location for your modified **env.4d** file in **12d Model 14** is in your **User** folder for **12d Model 14** so for **12d Model 15**, you need to copy this **env.4d** file to your **User** folder in **12d Model 15**.

(d) Are you using a 12d Network Lock ?

If you are setting up **12d Model** to use a **12d Network CodeMeter** for the first time, please read the section [7 What's New in 12d Model 15 on page 45](#).

If you are using a **12d Network Lock (CodeMeter or Wibu)** for **12d Model 14**, then the file **dongles.4d** which is in the **User** folder contains the information to tell **12d Model** that it has to search for a network lock, and possibly which computer the network lock is on.

So if you are using a **12d Network Lock** for **12d Model 14**, you will need to copy your **12d Model 14 dongles.4d** file to the **12d Model 15 User** folder.

## 4.4 End of the Notes for Installing 12d Model 15

This ends the detailed notes for installing **12d Model 15**.

If you need to set up a **Network CodeMeter**, go to the section [10 Network CodeMeters on page 51](#).

The links for downloading documentation on **12d Model** are given in [6 Documentation on page 40](#).

The links for downloading information, power points and videos on what is new in **12d Model 15** are given in [7 What's New in 12d Model 15 on page 45](#).

The rest of the chapters in this document are

[5 Certifying CodeMeters on page 30](#)

[6 Documentation on page 40](#)

[7 What's New in 12d Model 15 on page 45](#)

[8 12d Model Training on page 46](#)

[9 Errors Installing and Authorising on page 47](#)

[10 Network CodeMeters on page 51](#)

[11 CodeMeter Control Center & WebAdmin on page 79](#)

## 5 Certifying CodeMeters

CodeMeters use the **Certified Time** capability of the CodeMeter and the CodeMeter must communicate **over the Internet** with a certified Time Server every two months to check that there is no problem with the CodeMeter, and to **update** the **Certified time** in the CodeMeter.

This process is called **Certifying the CodeMeter**.

Certifying a CodeMeter can be done

- (a) manually from inside **12d Model** itself  
Already documented. See [5.1 Certifying CodeMeters from 12d Model on page 30](#)
  - (b) automatically by **12d Model**  
Already documented. See [5.2 Automatically Certifying CodeMeters from 12d Model on page 32](#)
  - (c) outside of **12d Model** when the CodeMeter is on the computer you are using outside  
Using **CodeMeter Control Centre** - already documented in [5.3 Certifying CodeMeters Using Control Center on page 33](#).
- or
- (d) outside **12d Model** when the CodeMeter is **NOT** on the computer your are using  
It is possible to certify CodeMeters that are on other computers but this is usually only needed by Administrators. See [11.3.1 Certifying CodeMeters Using WebAdmin on page 89](#)

### 5.1 Certifying CodeMeters from 12d Model

One month before the end of the two month period, **12d Model** will bring up the **Certify CodeMeter Dongle** panel which gives the number of days, minutes and seconds remaining until Certification is required.

Certify CodeMeter Dongle	
Container	3-1: testa_bed@fred.com
Clock time	2024-03-29 04:54:12
System time	2024-03-29 04:54:10
Box time	2024-03-29 04:51:56
Certify time	2024-03-28 00:36:25
Warnings	warnings will begin in 28 days 19 hours 42 minutes 15 seconds
Countdown	needs to be certified within the next 58 days 19 hours 42 minutes 14 seconds
<div> <div>Certify</div> <div>Cmdust</div> <div>Save and exit 12d</div> <div>Exit 12d</div> <div>Finish</div> <div>Help</div> </div>	

The **Certify CodeMeter Dongle** panel can also be brought up from within **12d Model** by the option  
**Project =>Management =>Dongles =>Certify CodeMeter**

The **Certified time** for that **CodeMeter** is updated to the current date by clicking on the **Certify** button.

### Important Note

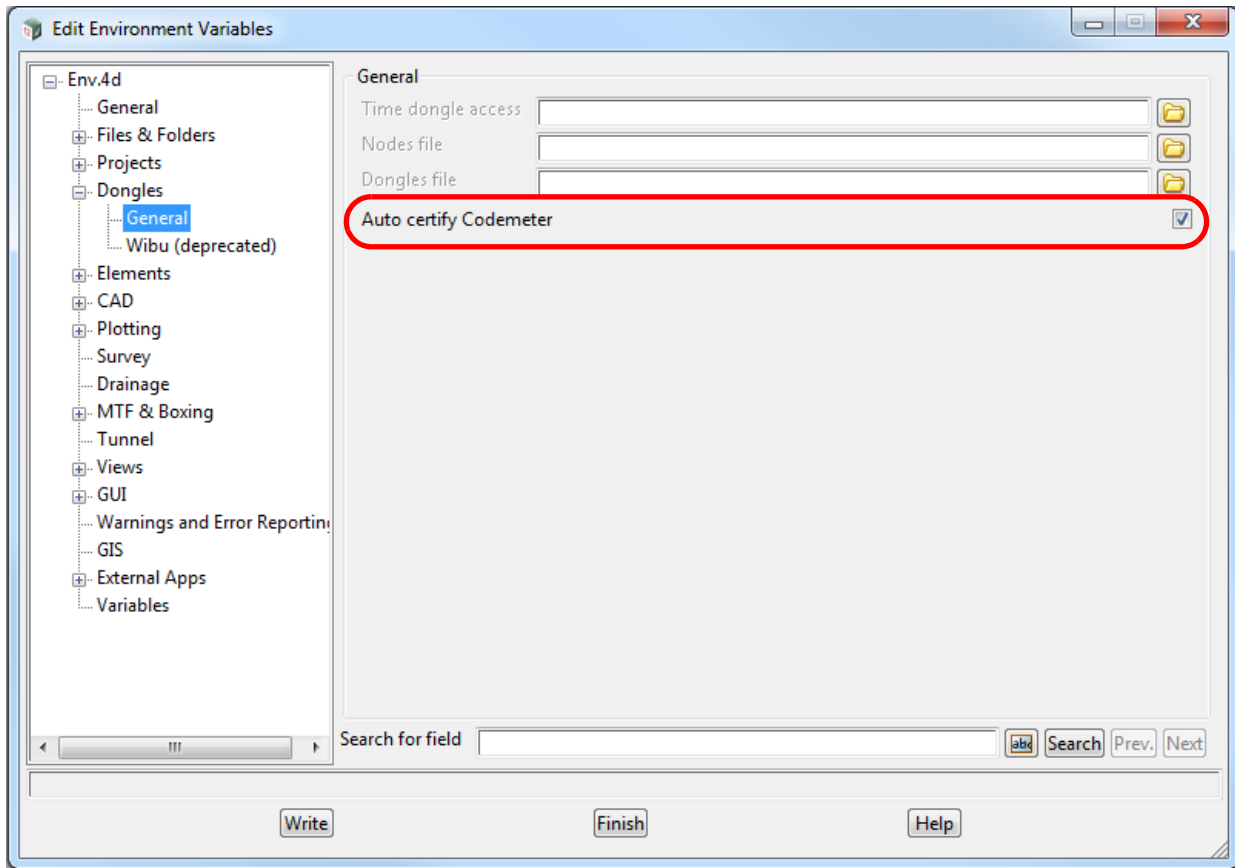
There is an environment variable **AUTO\_CERTIFY\_DONGLE\_4D** and if it is set on then when the warning period is active for the CodeMeter (dongle) being used by **12d Model**, **12d Model** will automatically attempt to certify the CodeMeter and if successful, no intervention by the user is required. See [5.2 Automatically Certifying CodeMeters from 12d Model on page 32](#).

## 5.2 Automatically Certifying CodeMeters from 12d Model

**12d Model** can automatically attempt to certify the CodeMeter whenever it is within the warning period (within one month of the two months after the Certified Time).

If the environment variable **AUTO\_CERTIFY\_DONGLE\_4D** to **1**, whenever **12d Model** is started up, then if it is in the warning period **12d Model** will automatically attempt to certify the dongle. And if successful, no user intervention is required.

The environment variable **AUTO\_CERTIFY\_DONGLE\_4D** is set by the **Edit Environment Variables** panel, which is brought up by the **Projects =>Management =>env.4d** option.



Please contact your **12d Model Reseller** if you are having problems certifying your **CodeMeter**.

### Note

Any computer which has the environment variable **AUTO\_CERTIFY\_DONGLE\_4D** set to **1** can certify the **Network CodeMeter** that it is using to obtain a license from a **12d dongle**.

Please contact your **12d Model Reseller** if you are having problems certifying your **CodeMeter**.

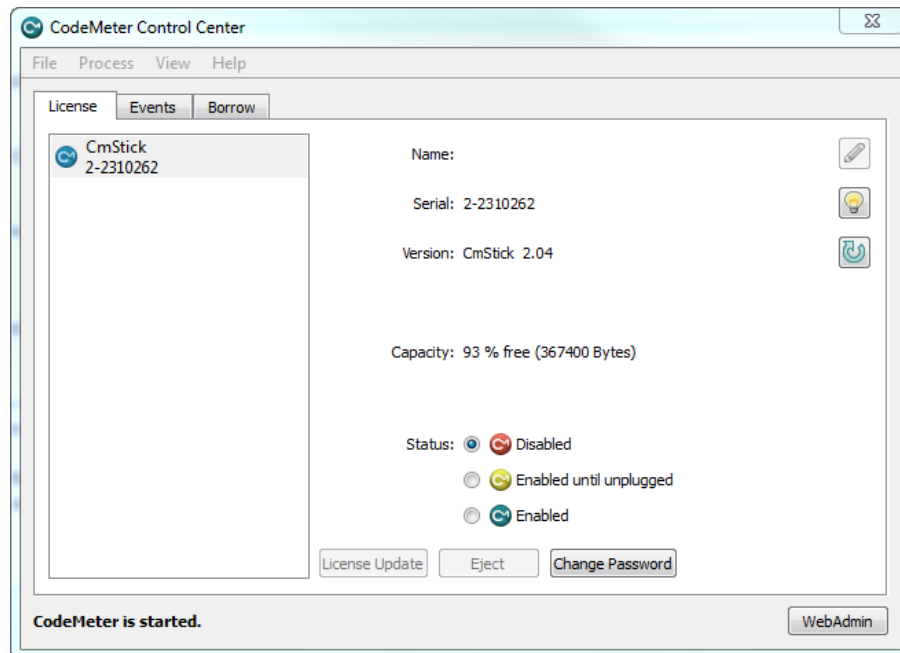


## 5.3 Certifying CodeMeters Using Control Center

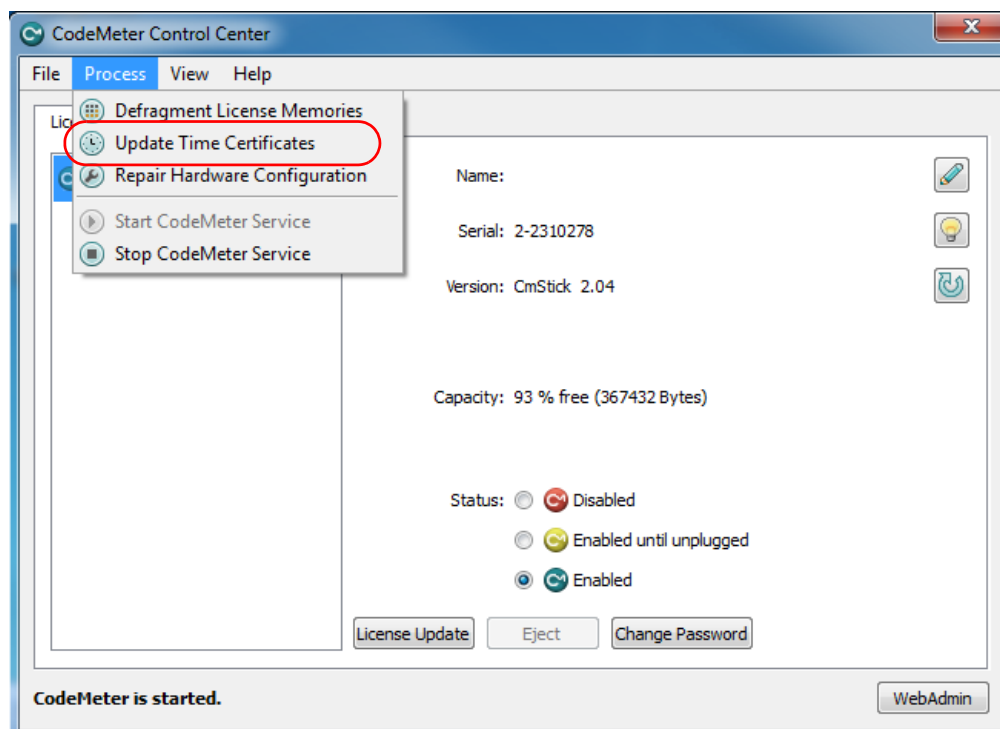
The Certified Time for any **CodeMeter** attached to your current computer can be displayed by using the **CodeMeter Control Center** which is brought up by clicking on the **CodeMeter** icon that was installed on your task bar.



The **CodeMeter Control Center** shows any **CodeMeters** that are attached to the this computer.



The Certified Time in a CodeMeter that is on this computer can be displayed and updated by clicking on **Process > Update Time Certificates**



**Note**

If the **CodeMeter** is not on the computer you are using the then certifying the codemeter must be done using **CodeMeter WebAdmin** (see [11.3.1 Certifying CodeMeters Using WebAdmin on page 89](#)).

## 5.4 Installing the CodeMeter Drivers Separately

For some reason you may want to install the CodeMeter drivers separately to the **12d Model** installation. In that case you only need to download the CodeMeterRuntime\_7\_30a.exe which is downloaded from:

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/CodeMeterRuntime\\_7\\_30a.exe](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/CodeMeterRuntime_7_30a.exe)

**WARNING** You need to have System Administrator rights to install the CodeMeter drivers

Once you have downloaded **CodeMeterRuntime\_7\_30a.exe**, click on it to begin the installation process.

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Installing the CodeMeter Drivers:

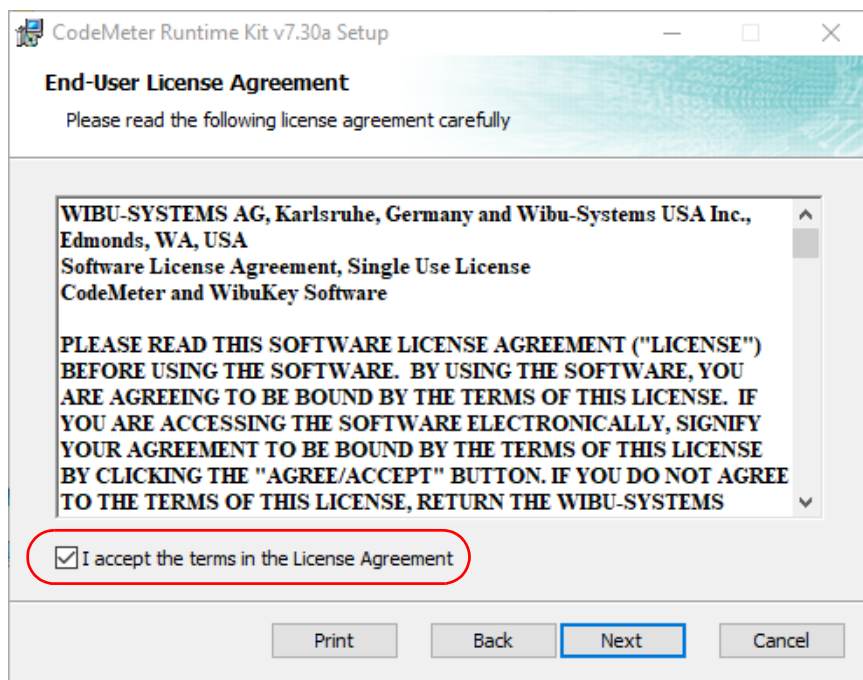
The script to install the **CodeMeter** drivers begins.

**CodeMeter Setup**

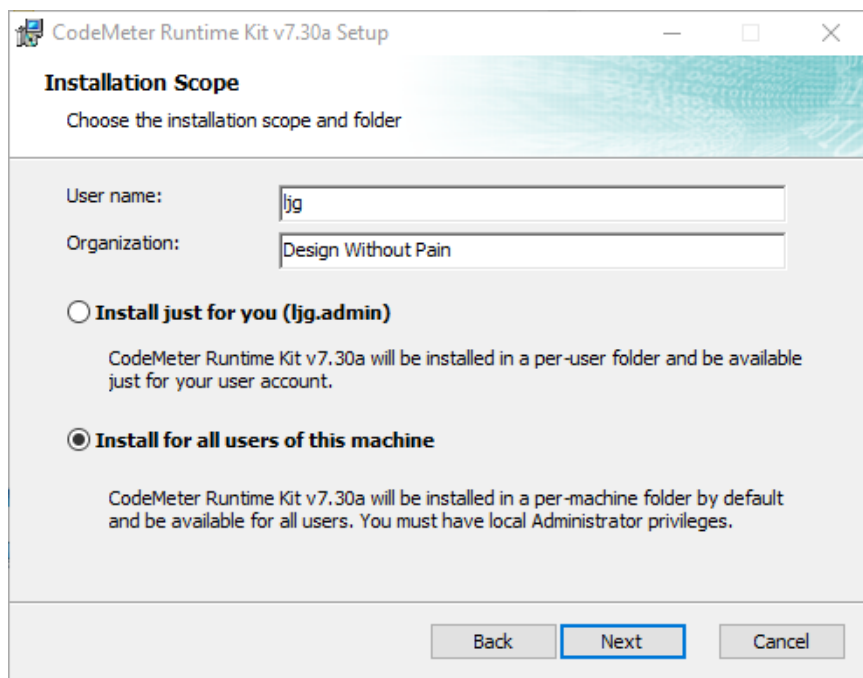
*CodeMeter Runtime Kit Setup*



Select **Next** to continue.

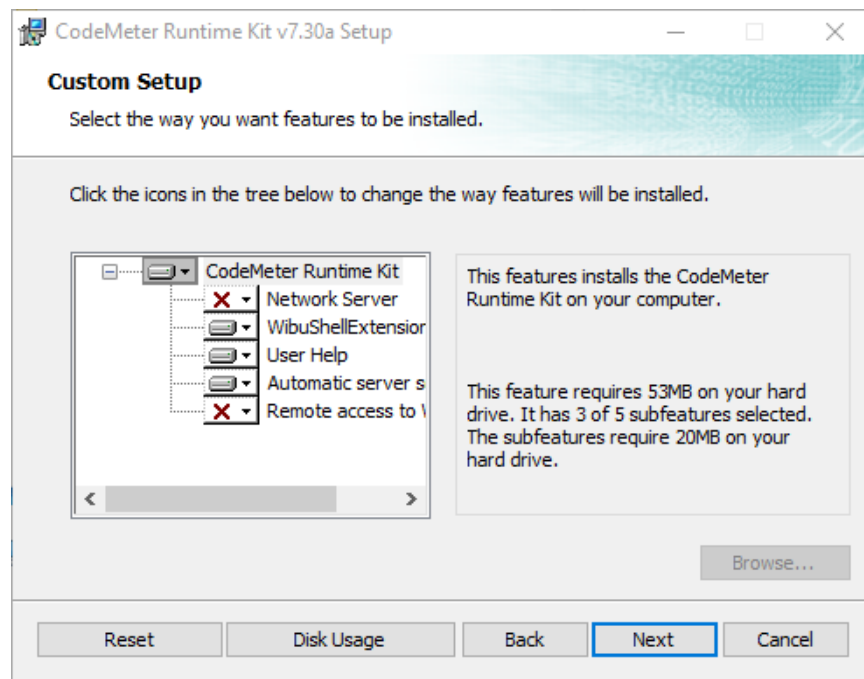
**End-User License Agreement***CodeMeter Runtime Kit Setup*

Read the License Agreement and if you are happy with it, tick "I accept the terms in the License Agreement" and then select **Next** to continue.

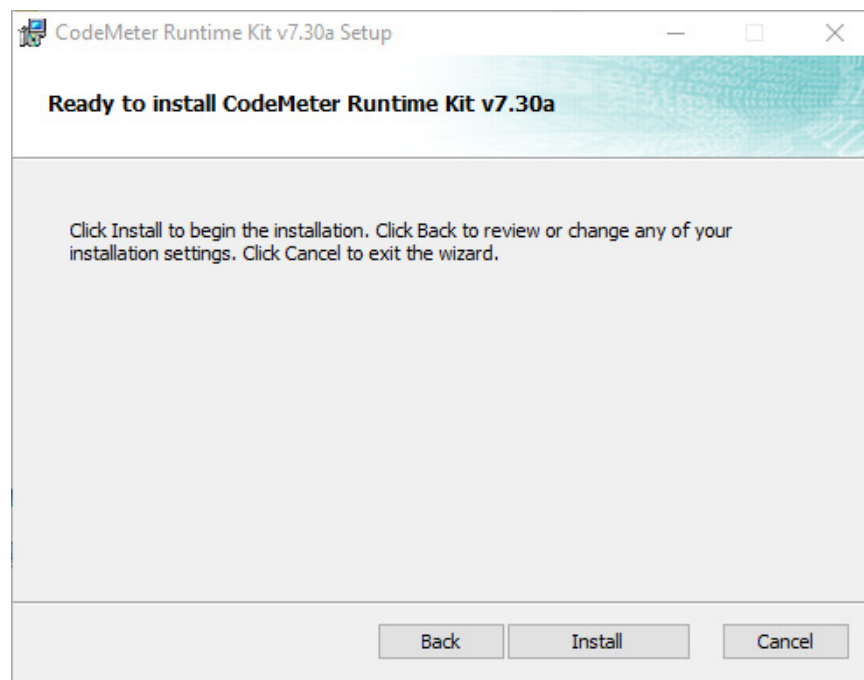
**Installation Scope***CodeMeter Runtime Kit Setup*

Enter your **User name** and **Organisation**.

Click on either **Install just for you** or **Install for all users of this machine** and then select **Next** to continue.

**Custom Setup***CodeMeter Runtime Kit Setup*

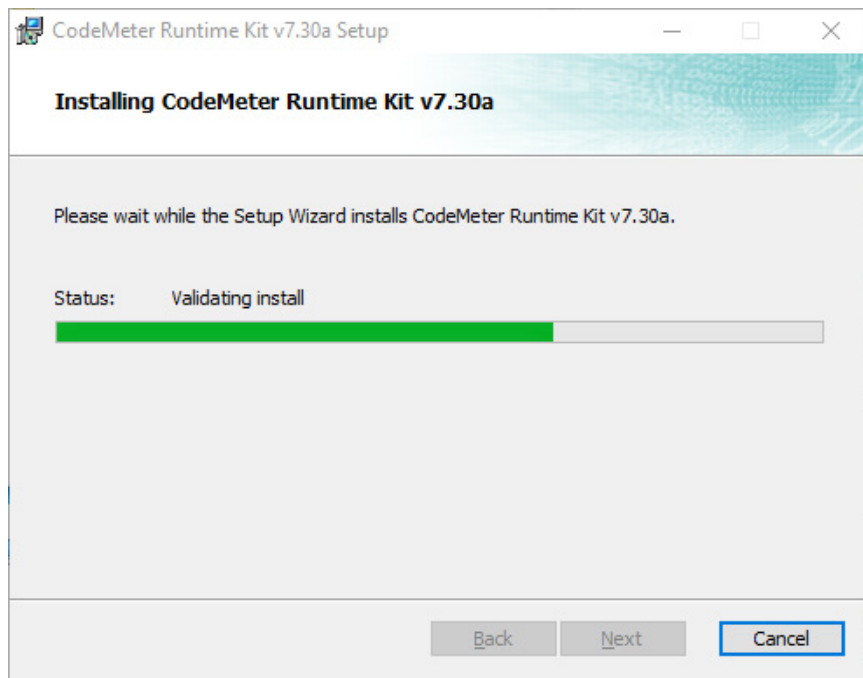
Select **Next** to continue.

**Ready to Install***CodeMeter Runtime Kit Setup*

Select **Install** to continue.

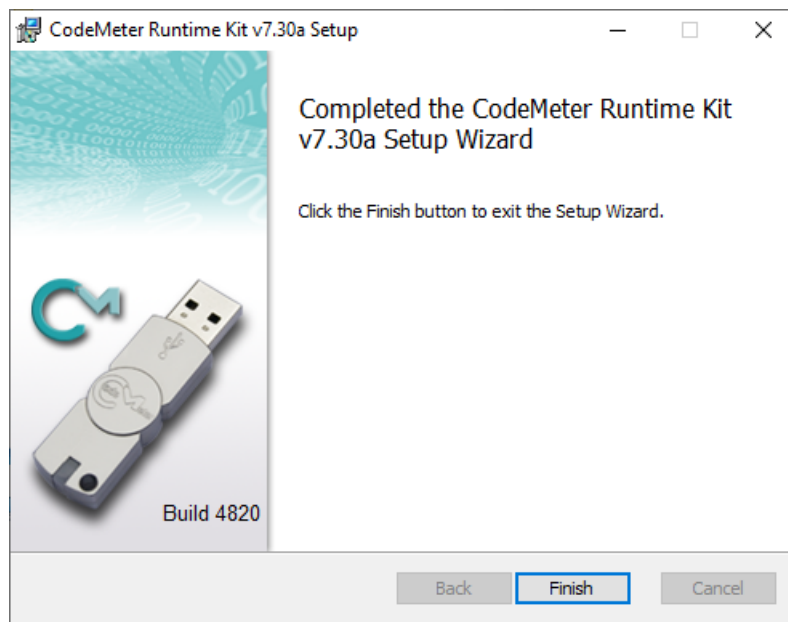
## Installing

### CodeMeter Runtime Kit Setup



## Completed

### CodeMeter Runtime Kit Setup



Select **Finish** to end.

**Note:** A **CodeMeter** icon, that is used to bring up the **CodeMeter Control Center**, is also installed on your task bar.



## Important Notes

1. Do not attach a hardware lock to your computer until after the appropriate driver is installed

2. The CodeMeter drivers need to be at least version **6.3**.

If your computer already has drivers installed and they are NOT at least version **6.3**, when **12d Model 15** starts it will stop and complain that the hardware lock drives are **NOT** up to date.

If that is the case then

- (a) Uninstall the existing CodeMeter drivers
- (b) Install new CodeMeter drivers. See [5.4 Installing the CodeMeter Drivers Separately](#).

If you were installing the CodeMeter drivers as part of setting up a **Network CodeMeter**, go to [What is Done to the Computer By Step 1](#).

After CodeMeter drivers have been installed, the CodeMeter can be attached to the computer. Go to [Step 2. Attach the Dongle](#).

# 6 Documentation

See

[6.1 12d Model Reference Manual on page 40](#)

[6.2 12d Model Programming Language Manual on page 42](#)

[6.4 12dxml File Format on page 43](#)

[6.5 12da File Format on page 44](#)

[7 What's New in 12d Model 15 on page 45](#)

## 6.1 12d Model Reference Manual

The **12d Model Reference** manual contains the technical information required for using **12d Model** includes information such as:

- (a) the tools and concept used in **12d Model**
- (b) descriptions of the **12d Model** screen layout, views and toolbars
- (c) information on each **12d Model** menu
- (d) technical information on the fields in each **12d Model** panel
- (e) information on all the set up files for **12d Model**. For example, for colours and linestyles
- (f) information on the **12d XML** and **12da** file formats
- (g) information on the **12dfield** and **fld** file formats

Although the **12d Model Reference** manual contains some information on each of the field in panels, it is the technical information about what is valid values etc and is not intended to be a full description on how all the options work together. That is, it is **NOT a training manual**.

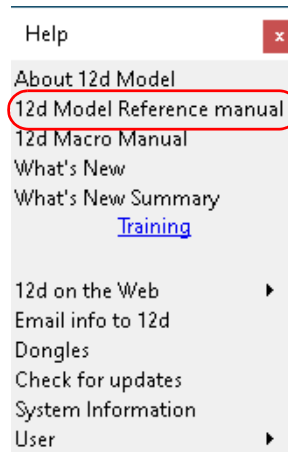
The **12d Model Reference** manual also acts as a **context sensitive Help** system when **12d Model** is running.

That is, when **12d Model** is running:

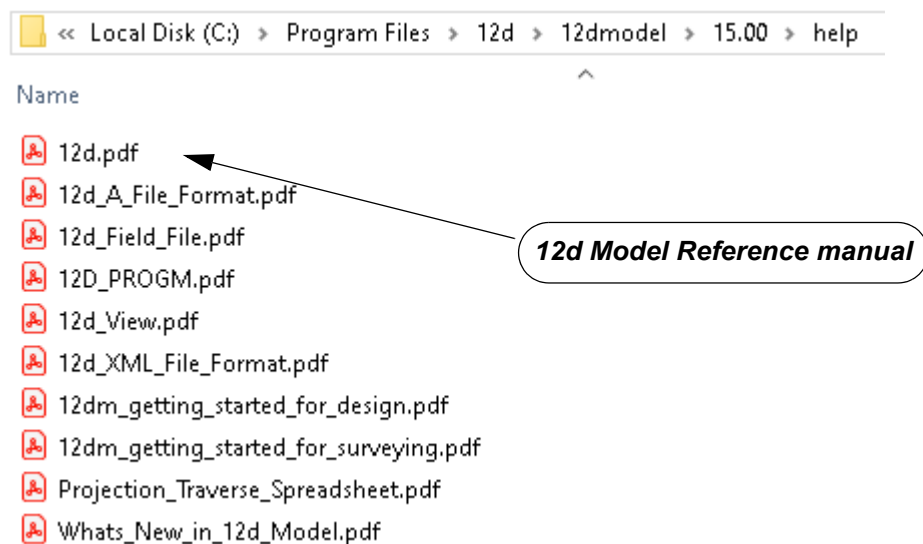
- (a) for most menus in **12d Model**, when the menu is on the screen and has the Windows focus, pressing F1 will open the **12d Model Reference** manual at that menu
- (b) for most panels in **12d Model**, when the panel is on the screen and has the Windows focus, pressing F1 will open the **12d Model Reference** manual at that panel. Or if the panel has a **Help** button, clicking on the **Help** button opens the **12d Model Reference** manual at that panel.

The full **12d Model Reference** manual is can be accessed from within **12d Model** by clicking on the option **Help =>12d Model**.





The **12d Model Reference** is a pdf file and when **12d Model** is installed, it is copied into the **Help** folder.



To download a zipped copy of the **12d Model Reference** manual, **12d.pdf**, click on the following link and then unzip the downloaded file

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d.zip](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d.zip)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Continue to [6.2 12d Model Programming Language Manual](#) or return to [6 Documentation](#).

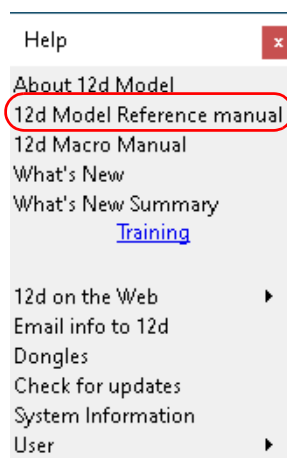
## 6.2 12d Model Programming Language Manual

The **12d Model Programming Language** (12dPL), is a powerful programming language designed to run from within **12d Model**. It is also known as 4DML from when the product was called **4d Model**.

Its main purpose is to allow users to enhance the existing **12d Model** package by writing their own programs. These programs are often called **macros**.

The **12d Model Programming Language** manual is a reference manual and does not try to teach programming techniques. Instead this manual sets out the syntax, restrictions and supplied functions available in 12dPL.

The **12d Model Programming Language** manual is a pdf file and can be downloaded from within **12d Model** by clicking on the option **Help =>12d Macro Manual**.



To download a pdf copy of the **12d Model Programming Language** manual **12d\_prog.pdf** outside of **12d Model**, click on the following link

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_prog.pdf](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_prog.pdf)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Continue to [6.3 12d Field File Format](#) or return to [6 Documentation](#).

## 6.3 12d Field File Format

The **12d Field File Format** manual contains the documentation of the **12d Model** raw survey file format **.12dfield**, and the older raw survey file format, **.fld**.

The **12d Field File Format** is part of the **12d Model Reference** manual (see [6.1 12d Model Reference Manual](#)) but the chapter has also been separated out so the entire **12d Model Reference** manual is not needed.

To download a pdf copy of the **12d Field File Format** manual, click on the following link

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_Field\\_File\\_Format.pdf](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_Field_File_Format.pdf)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Continue to [6.4 12dxml File Format](#) or return to [6 Documentation](#).

## 6.4 12dxml File Format

The **12dxml** file format is a text file definition from **12d Solutions** which is used for reading and writing out string data from **12d Model**. **12dxml** files normally end in **.12dxml**.

The **12dxml** file is a Unicode file.

The documentation for **12dxml** is part of the **12d Model Reference** manual (see [6.1 12d Model Reference Manual](#)) but the chapter has also been separated out so the entire **12d Model Reference** manual is not needed.

To download a pdf copy of the **12d Model 12dxml** manual, click on the following link

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_xml\\_File\\_Format.pdf](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_xml_File_Format.pdf)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Continue to [6.5 12da File Format](#) or return to [6 Documentation](#).

## 6.5 12da File Format

The **12da** (**12d Archive**) file format is a text file definition from **12d Solutions** which is used for reading and writing out string data from **12d Model**. **12da** files normally end in **.12da**.

The **12da** file is a **Unicode** file.

The documentation for **12da** is part of the **12d Model Reference** manual (see [6.1 12d Model Reference Manual](#)) but the chapter has also been separated out so the entire **12d Model Reference** manual is not needed.

To download a pdf copy of the **12da File Format** manual, click on the following link

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/12d\\_A\\_File\\_Format.pdf](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/12d_A_File_Format.pdf)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

### Further Notes:

1. **12da** was originally an Ascii file and stood for **12d Ascii** but now that the **12da** file is a Unicode file, **12da** stands for **12d Archive**.
2. 12da has now been superseded by 12d xml (see [6.4 12dxml File Format](#))

Continue to [7 What's New in 12d Model 15](#) or return to [6 Documentation](#).

# 7 What's New in 12d Model 15

This chapter contains links to information on many of the new things in **12d Model 15**.

See

[7.1 What's New pdf on page 45](#)

[7.2 What's New Summary of All Additions on page 45](#)

[7.3 What's New Summary of Additions Sorted by Sub-Version on page 45](#)

## 7.1 What's New pdf

The **What's New in 12d Model 15 pdf** gives detailed information on many of the new options and features in **12d Model 15**.

[https://downloads.12dmodel.com/V15/12d\\_Model\\_15\\_C1p/Whats\\_New\\_in\\_12d\\_Model.pdf](https://downloads.12dmodel.com/V15/12d_Model_15_C1p/Whats_New_in_12d_Model.pdf)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

## 7.2 What's New Summary of All Additions

A one line summary of all the additions in **12d Model 15**, sorted by **Component**:

[https://downloads.12dmodel.com/V15/12d\\_Model\\_15\\_C1p/WNS\\_in\\_12d\\_Model\\_All.htm](https://downloads.12dmodel.com/V15/12d_Model_15_C1p/WNS_in_12d_Model_All.htm)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

## 7.3 What's New Summary of Additions Sorted by Sub-Version

A one line summary of all the additions and fixed bugs in **12d Model 15**, broken into **sub-versions** and subsorted by **Components**:

[https://downloads.12dmodel.com/V15/12d\\_Model\\_15\\_C1p/WNS\\_in\\_12d\\_Model\\_subsort.htm](https://downloads.12dmodel.com/V15/12d_Model_15_C1p/WNS_in_12d_Model_subsort.htm)

**Note:** If clicking on the link does not start up your Browser then copy the text of the link into your Browser.

Continue to [8 12d Model Training](#) or return to [6 Documentation](#).

## 8 12d Model Training

There are a variety of **12d Model** training courses available including:

(a) Instructor Led Online Public Training

This training is conducted over Teams and is led by an Instructor. Courses from beginners to advanced are available on all aspects of **12d Model**.

**12d Model** licences are provided for the training.

The **Public** courses are open to anyone.

(b) Instructor Led Online Training for One Company

This training is conducted over Teams and is led by an Instructor. Courses from beginners to advanced are available on all aspects of **12d Model**.

**12d Model** licences are provided for the training.

The **One Company** courses are restricted to those students nominated by the company booking the course.

(c) Self Paced Online Training (SPOT)

This training is conducted online but there is no Instructor. The student works through a series of videos and questions. **12d Model** licences are provided for the training.

There are **FREE** and chargeable SPOT courses.

The **SPOT** courses are open to anyone.

(d) Face to Face Public Training

This training is conducted face-to-face by an Instructor. Courses from beginners to advanced are available on all aspects of **12d Model**.

**12d Model** licences are provided for the training.

The **Public** courses are open to anyone.

(e) Face to Face Inhouse Training for the One Company

This training is conducted face-to-face by an Instructor. Courses from beginners to advanced are available on all aspects of **12d Model**.

**12d Model** licences are provided for the training.

The **One Company** courses are restricted to those students nominated by the company booking the course.

For more information, see <https://www.12d.com/training/index.html> and/or <https://www.civilandsurveying.com>

Return to [7 What's New in 12d Model 15](#).

# 9 Errors Installing and Authorising

See

[9.1 12d Model XX Not Authorising on page 47](#)

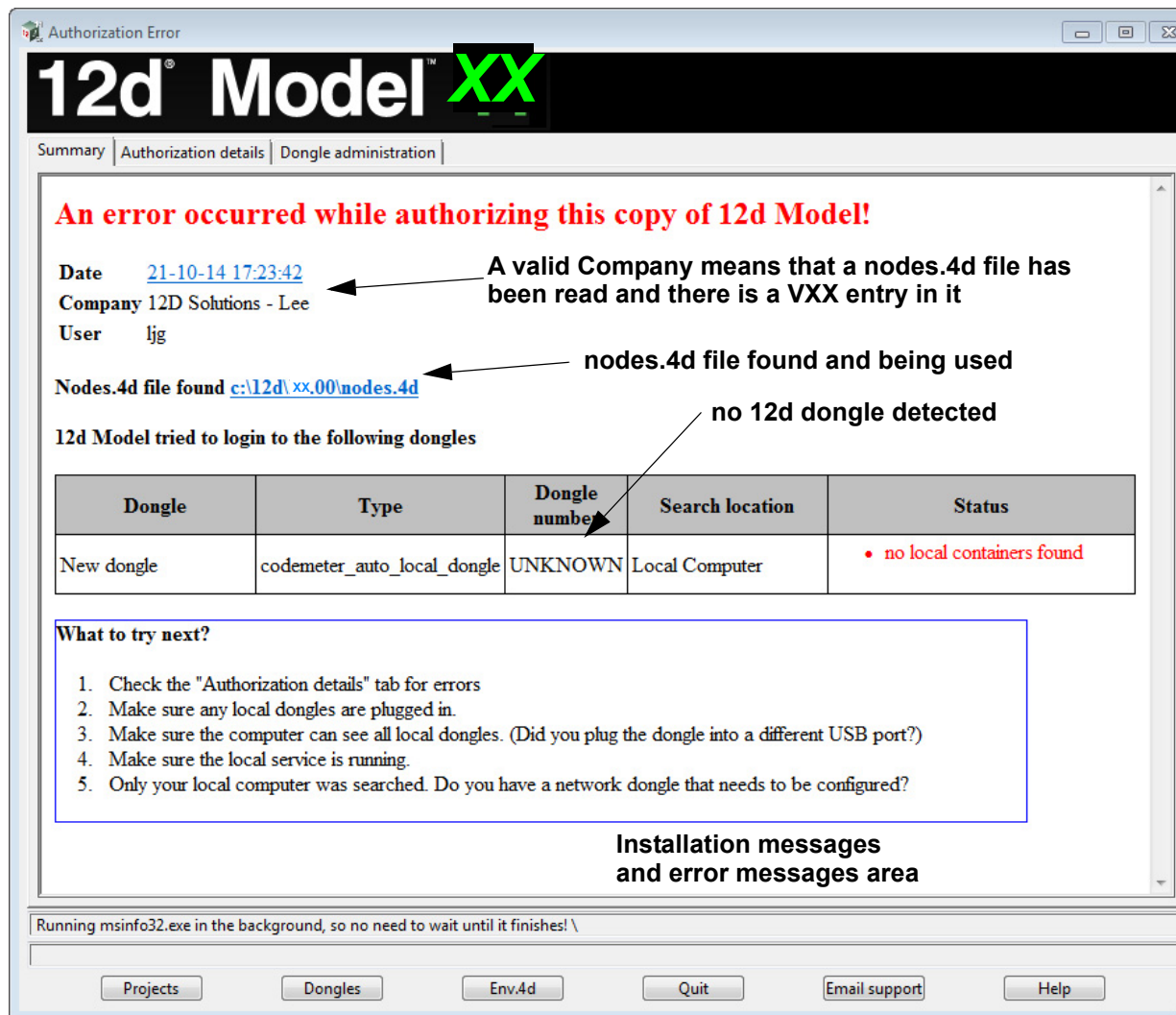
[9.2 Licence Expiry Warning on page 48](#)

[9.3 Dongle Missing on page 49](#)

## 9.1 12d Model XX Not Authorising

If there is an **error** with the installation, then the **Error Authorizing Release Version** panel appears with the error messages in the panel message area.

For example, for **12d Model XX**



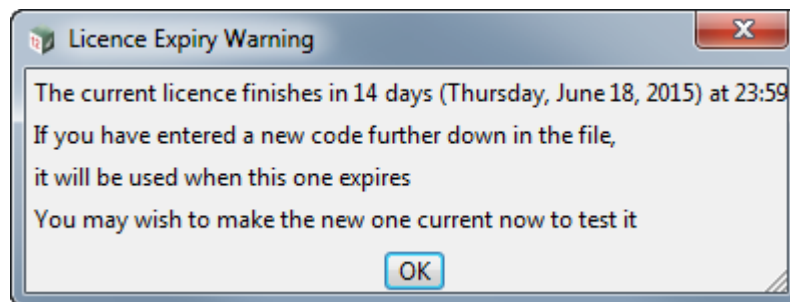
In the above panel, the UNKNOWN in the **Dongle number** column shows that no **12d** dongle has been detected.

If there is no error message on the panel or it is still not obvious what the problem is, please contact your **12d Model Reseller**.

## 9.2 Licence Expiry Warning

The **nodes.4d** file that controls **12d Model**, only validates **12d Model** to run for a certain period of time.

If when running **12d Model**, the Licence Expiry Warning panel appears:



it simply means that the **nodes.4d** file needs to be updated.

Please contact your **12d Model Reseller** to obtain a new **nodes file** before the given date. If this is not done then **12d Model** will no longer run until you do obtain and install a new nodes file.



## 9.3 Dongle Missing

If when running **12d Model**, the **Dongle Missing** panel appears:



it simply means that the **12d** dongle can no longer be seen by **12d Model**.

Please check that your **12d** dongle is still attached to your computer, or if you are using a network dongle, that your network is still active.

Then click on **Retry**, and if that doesn't work, click on **Dongle retry**.

Even if you still can not see the dongle, **12d Model** will allow you to save your current work so that nothing is lost by clicking on the **Save and exit 12d** button.



# 10 Network CodeMeters

A **12d Local CodeMeter** (also known as a **Standalone** or **single-user CodeMeter**) is a CodeMeter that is attached to a computer that only allows **12d Model** to be run on **that computer**.

If the **12d Local CodeMeter** is to be used on another computer then the **12d Local CodeMeter** must be moved to the other computer. This means that **12d Model** will no longer run on the computer without the **12d Local CodeMeter**.

This is the default installation for **12d Model**.

A **12d Network CodeMeter** is a CodeMeter that controls a number of **12d Model** licenses and the **12d Network CodeMeter** can potentially be accessed by **any other computer on the network**, and allows copies of **12d Model** to be run on those computers without needing a **12d Local CodeMeter**.

The **12d Model** licenses controlled by the **12d Network CodeMeter** can be accessed and used in any country and any time zone, subject to any Australian and local Laws that may prevent it.

The only restriction is that each instance of **12d Model** on a computer requires its own **12d Model** license from the **12d Network CodeMeter**.

**12d Network CodeMeters** are metallic and a silver colour, and are labelled with a number starting with **ec**.



**Note:** When using a **12d Network CodeMeter**, each running copy of **12d Model** using a **12d Network CodeMeter** on a computer requires a license from the **12d Network CodeMeter**.

If your computer is not using a **12d Local CodeMeter** and is only using a **12d Network CodeMeter** to obtain **12d Model** licenses then **12d Model** and the CodeMeter Drivers **still need to be installed on the computer** that is wanting to run **12d Model**.

**BUT** when **12d Model** is installed it is set up for users with a **Local (single user or stand alone)** CodeMeter and installs a **dongles.4d** file that assumes that **12d Model** is only using a **12d Local CodeMeter** and has no access to a **12d Network CodeMeter**.

So to access a **12d Network CodeMeter**, the **dongles.4d** file needs to be modified and the **nodes.4d** file you use will need to contain an authorization for the **12d Local CodeMeter**.

**Note:** a computer can be set up to look for both a **12d Local CodeMeter** and a **12d Network CodeMeter**.

To install the **Network CodeMeter** and configure computers to use the Network CodeMeter, you will need

## 1. First Install the CodeMeter drivers

### IMPORTANT WARNING

Do not attach any CodeMeters, Network or Standalone, to your computer until after you have installed the CodeMeter Drivers.

The latest CodeMeter Drivers installation program **12d\_dongles\_installation\_date.exe** is downloaded from:

[https://downloads.12dmodel.com/v15/12d\\_Model\\_15\\_C1p/CodeMeterRuntime\\_7\\_30a.exe](https://downloads.12dmodel.com/v15/12d_Model_15_C1p/CodeMeterRuntime_7_30a.exe)

For the notes for installing the CodeMeter Drivers separately, see [5.4 Installing the CodeMeter Drivers Separately on page 35](#).

2. a **nodes.4d** file to authorize the **12d Model xx** licenses controlled by the **12d Network CodeMeter** where **xx** is the **12d Model** versions required.

This is usually supplied in an email a the attached file **nodes.12dxxn** (for example, for **12d Model 15**, it will be **nodes.12d15n**)

Or you may already have it in a folder with the **12d Model** authorization file **nodes.12dxxn** or **nodes.4d** in it.

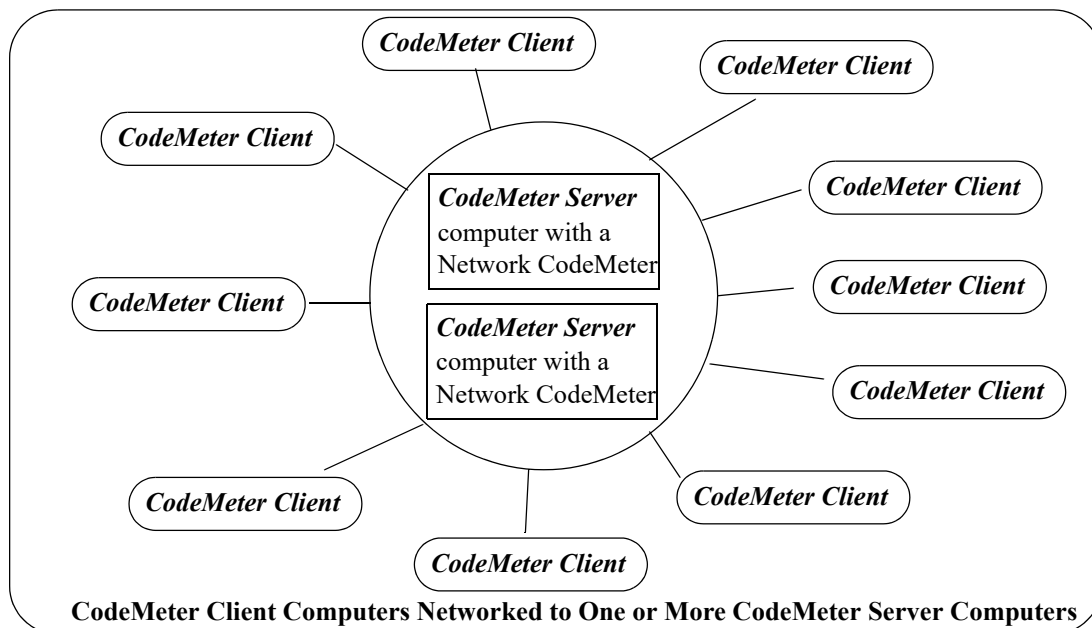
Full instructions setting up Network CodeMeters, and making the required modifications to the **dongles.4d** file and the **nodes.4d** file, are given in the rest of this chapter.

Continue to [10.1 Definitions and Guide to the Network Notes on page 53](#).

# 10.1 Definitions and Guide to the Network Notes

A **12d CodeMeter Server** is a computer with a **12d Network CodeMeter** attached to it. Note that this can be any computer, it does not have to be a Server Computer.

A **12d CodeMeter Client** is a computer that gets its **12d Model** licenses from a **12d CodeMeter Server**. The CodeMeter Client computer does not have a 12d Network CodeMeter attached to it.



Both **CodeMeter Servers** and **CodeMeter Clients** must have the **CodeMeter Drivers** and **CodeMeter Runtime Server** service installed and running and this is described in [10.2 Installing CodeMeter Drivers on page 55](#).

**CodeMeter Servers** must also have the **CodeMeter Network Server** running and this is described in [Step 6. Starting the 12d Network Server on page 63](#).

To run **12d Model** on a CodeMeter Client, an appropriate **dongles.4d** and valid **nodes.4d** file must be obtained and set up. This is describing in [10.4 dongles.4d and nodes.4d on page 65](#).

These notes are for

- (a) Installing and setting up a new 12d Network CodeMeter to act as a 12d License server
- (b) Setting up other computers (Clients) so they can access the Network CodeMeter and **12d Model** licenses in the 12d Network CodeMeter.
- (c) Setting up/Updating **dongles.4d** to instruct the other computers (Clients) which Network CodeMeters to use. This can be down to the level of using a **particular** virtual **12d dongle** inside a **particular** 12d Network CodeMeter.
- (d) Setting up/Updating the **nodes.4d** file with the authorization to match the **12d dongle** being accessed inside a 12d Network CodeMeter.
- (e) Updating the **12d Model** licenses in a 12d Network CodeMeter
- and
- (f) Monitoring 12d Network CodeMeters.

## WARNING

If the computers accessing a **12d Network CodeMeter** are in a **different subnet** (behind a **router**) to the **12d Network CodeMeter** then **12d Model** needs to be given the IP address or the computer names of the servers with the **12d Network CodeMeter**. This will be explained later in the notes. This will also apply to computers connected by Wireless or DHCP.

If you already have a **12d Network CodeMeter** and are simply updating a **12d dongle** inside the **Network CodeMeter**, go to the section [11.5 Updating Licenses in Network CodeMeters on page 111](#).

if your are installing a **12d Network CodeMeter** on the computer for the first time, please continue to the next section [10.1 Definitions and Guide to the Network Notes on page 53](#).

## Important Note for Going From 12d Local CodeMeters to 12d CodeMeter Servers

The *CodeMeter drivers* are exactly the same ones that are used for a 12d Local (standalone or single-user) CodeMeter. So if a computer is already been used for a 12d Local CodeMeter with **12d Model**, then the *CodeMeter drivers* have already been installed and will not need to be installed again.

This means that if a **12d Network CodeMeter** is introduced, all the computers that are currently running **12d Model** with a Local CodeMeter will not need the CodeMeter drivers installed.

However, such **CodeMeter Client** computers will need a modification to their **dongles.4d** file to tell the computer that **12d Model** licenses can be obtained from a **12d Network CodeMeter** rather than just a 12d Local CodeMeter (see [10.4 dongles.4d and nodes.4d on page 65](#)).

Also a valid **nodes.4d** file for the **12d dongle** inside the **12d Network CodeMeter** is needed (see [11.5 Updating Licenses in Network CodeMeters on page 111](#)).

## 10.2 Installing CodeMeter Drivers

**IMPORTANT WARNING** - Do not attach a 12d CodeMeter to your computer until after you have installed the CodeMeter drivers.

This section is installing the CodeMeter drivers.

This must be done on the computer that will have the 12d Network CodeMeter attached to it (the **CodeMeter Server**) and also for all the computers that are **12d CodeMeter Clients** using the CodeMeter Server.

If the computer has **no** CodeMeter Drivers, or **old** CodeMeter Drivers, installed on it, go to [5.4 Installing the CodeMeter Drivers Separately on page 35](#).

If a computer is to become a CodeMeter Sever but already has the CodeMeter Drivers installed on it, then go straight to [10.3 Setting up a 12d Network CodeMeter on page 58](#).

If the computer is already set up as a CodeMeter Server and you are adding a new **12d dongle** to the 12d Network CodeMeter, or upgrading the number of 12d licenses on a **12d dongle** in the 12d Network CodeMeter, go to [11.5.1.1 Updating Using the .WibuCmRaU File on page 115](#).

If you are replacing the existing 12d Network CodeMeter by a new 12d Network CodeMeter, go to [11.6 Replacing an Existing Network CodeMeter on page 119](#).

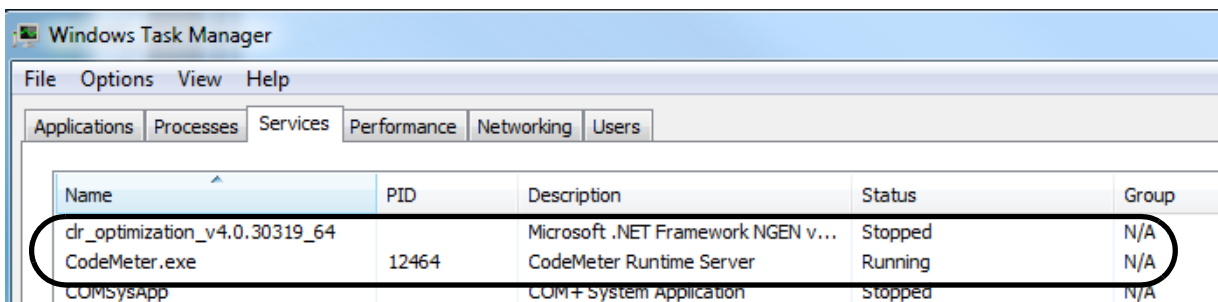
## What is Done to the Computer By Step 1

### 1. CodeMeter Drivers

The CodeMeter drivers that allows software to access CodeMeters anywhere on the network is installed.

### 2. CodeMeter Runtime Server

The service **CodeMeter Runtime Server** service is also installed and started on the computer and if you look in the **Services** tab of the *Windows Task Manager*, the **CodeMeter Runtime Server** will be shown as **Running**.



If for some reason the **CodeMeter Runtime Server** is shown as **Stopped**, to restart it again go to [Step 6. Starting the 12d Network Server on page 63.](#)

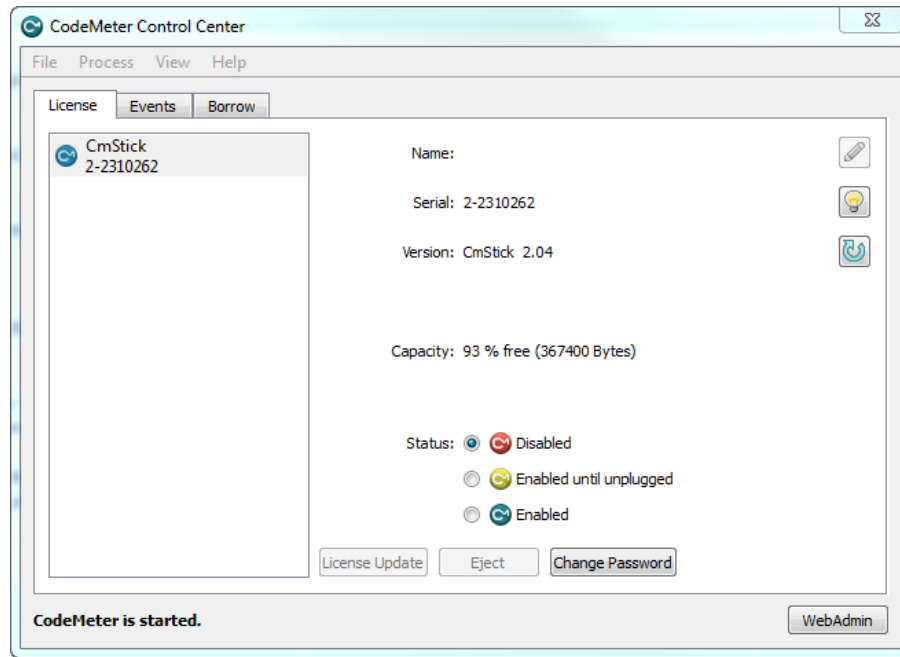
### 3. CodeMeter Icon

As well as installing the CodeMeter drivers., a **CodeMeter** icon is installed on your task bar



Clicking on the **CodeMeter** icon brings up the **CodeMeter Control Center** which shows any CodeMeters that are attached to the this computer. The **CodeMeter Control Center** also has options to stop and start the **CodeMeter Runtime Server** and bring up the **WebAdmin** panel to examine the content of CodeMeters anywhere on the network.





If the computer is to be a **CodeMeter Server**, then the next step is to check the Network CodeMeter. If this is the case then go to [10.3 Setting up a 12d Network CodeMeter on page 58](#).

If the computer is a **CodeMeter Client**, then the next steps are to

- (a) set up the **dongles.4d** file to see the **12d Network CodeMeter** (and if required a particular 12d dongle inside the 12d Network CodeMeter)
- and
- (b) set up the **nodes.4d** with the authorization for the required 12d dongle number.

For setting up **dongles.4d** and **nodes.4d**, see [10.4 dongles.4d and nodes.4d on page 65](#).

## 10.3 Setting up a 12d Network CodeMeter

The **CodeMeter drivers** are now installed and the **CodeMeter Runtime Server** is running.

The next steps are to actually attach the 12d Network CodeMeter, examine its contents to make sure everything that are correct, and then start up the **12d Network Server** so that other computers in the network will be able to see and use the 12d Network CodeMeter.

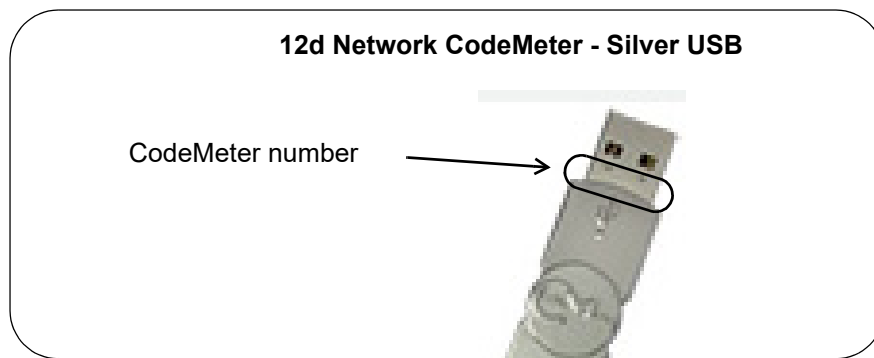
These steps will complete the setting up of the 12d Network CodeMeter as a **12d CodeMeter Server**.

### Step 2. Attaching the Network CodeMeter

The **physical CodeMeter number** can be found on the part of the 12d Network CodeMeter that is pushed into the USB port (the CodeMeter shaft). The number starts with **2-**.

This number needs to be recorded but you need to have very good eyes to be able to read it or have a magnifying glass.

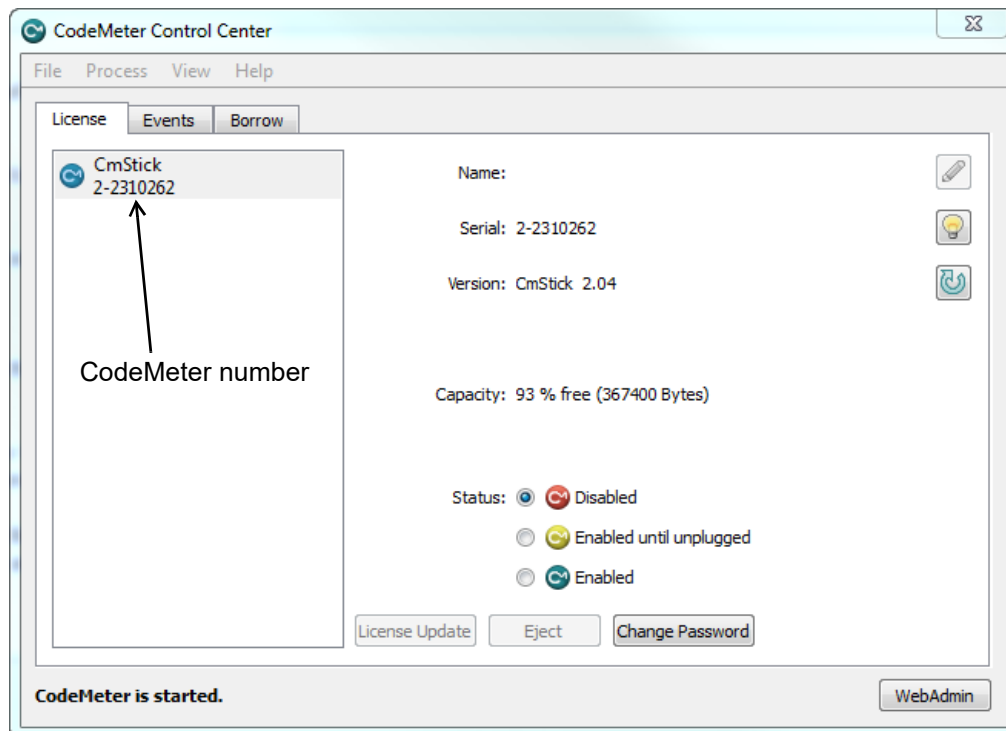
If the CodeMeter number can't be read, it is also possible to obtain the number after the 12d Network CodeMeter is plugged into the USB port of the computer (see [Step 3. Checking that the 12d Network CodeMeter is Visible on page 59.](#))



Now that the CodeMeter drivers are installed on the computer, the **12d Network CodeMeter** can now be attached to the USB port on the computer.

### Step 3. Checking that the 12d Network CodeMeter is Visible

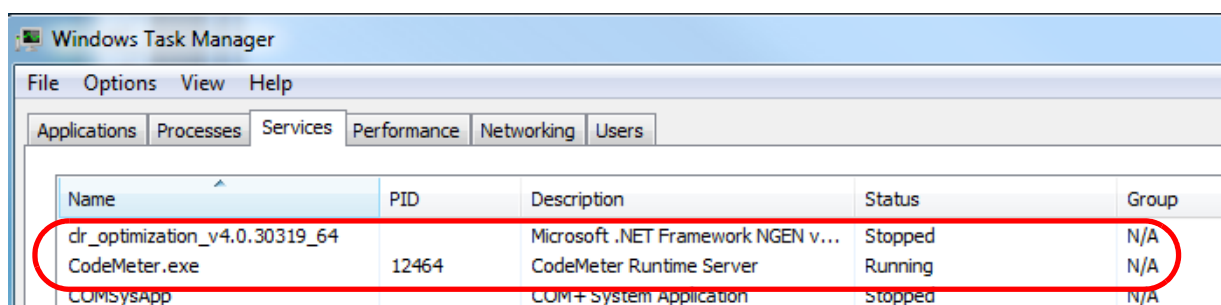
Click on the **CodeMeter** icon that was installed on your task bar to bring up the **CodeMeter Control Center** which shows what CodeMeters are on this computer.



The CodeMeter number, that is written on the shaft of the CodeMeter, should be displayed in the **CodeMeter Control Center**.

### Step 4. What to Do If You Can't See the CodeMeter

If you were unable to see the CodeMeter number in the **CodeMeter Control Center** then first check that the service **CodeMeter Runtime Server** service is installed and running on the computer by looking in the *Windows Task Manager* and checking that **CodeMeter Runtime Server** is shown as **Running**.



If for some reason the **CodeMeter Runtime Server** is there but shown as **Stopped**, to restart it again see [Step 6. Starting the 12d Network Server on page 63.](#)

If you are still having problems then contact your **12d Model Reseller**.

## Step 5. Checking the Virtual 12d Virtual Dongles Inside the Network CodeMeter

The **12d Network CodeMeter** alone is not enough to provide a license to run **12d Model**.

There must also be a **12d virtual dongle** *inside* the Network CodeMeter.

It is the **12d virtual dongle** that controls how many network licenses of **12d Model** are available.

### Aside:

The **12d virtual dongle** issues the **12d Model** licenses but the actual **12d Model** modules that go with a license from a **12d virtual dongle** is controlled by a matching entry in the **nodes.4d** file. This means that what **12d Model** modules you have can be updated by just adding a new entry for the nodes.4d file. The word **virtual** is used because the 12d virtual dongle is **NOT** a physical lock. The **12d virtual dongle** is often abbreviated to **12d dongle**.

Clicking on the **WebAdmin** button on the **CodeMeter Control Center** brings up the **CodeMeter WebAdmin** panel which is used to display information about any of the CodeMeters that it can see. **Note** - you may have one of two versions of WebAdmin - see [11.8 Which Version of WebAdmin? on page 120](#).

### For WebAdmin 6:

Clicking on the tab **Content > Licenses** of the **CodeMeter WebAdmin** panel displays the **12d virtual dongle** information stored in the selected CodeMeter.

The screenshot shows the CodeMeter WebAdmin interface. The main content area displays a table of licenses for the selected container. The table has columns: Product Code, Name, Unit Counter, Valid Until, License Quantity, and Feature Map. The table shows two licenses for the product '12d Model - Stock - 12d Solutions'. The first license has a unit counter of 'n/a', a valid until date of 'n/a', and a license quantity of '5'. The second license has a unit counter of 'n/a', a valid until date of 'n/a', and a license quantity of '25'. The 'License Quantity' column is highlighted in green. Arrows point to specific fields in the table with labels: '12d Product name' points to '12d Model - Stock - 12d Solutions', '12d Customer name' points to 'ec51470114', '12d virtual dongle number' points to 'ec51470113', and 'Total number of licenses on the 12d virtual dongle' points to '25'.

Product Code	Name	Unit Counter	Valid Until	License Quantity	Feature Map
1	SecuriKey Lite	n/a	n/a	1	0x1
1	12d Model - Stock - 12d Solutions - ec51470113	n/a	n/a	5	n/a
1	12d Model - Stock - 12d Solutions - ec51470114	n/a	n/a	25	n/a

For instructions on how to select and see CodeMeters on a particular 12d Network Server, see [11.4.1 Getting Info on CodeMeters on a Particular Server - WebAdmin 6 on page 98](#)

### For WebAdmin 5:

Clicking on the tab **Content > Licenses** of the **CodeMeter WebAdmin** panel displays the **12d virtual dongle** information stored in the selected CodeMeter.

CodeMeter WebAdmin

Home Content Server Configuration Diagnosis Info Help

CmContainer | Licenses | User Data | Backup/Restore

CmContainer: 2-2310262

100003   Bundling Articles					
Product Code	Name	Unit Counter	Expiration Time	Activation Time	License Quantity
1	SecuriKey Lite	n/a	n/a	n/a	1

101956   12d.com					
Product Code	Name	Unit Counter	Expiration Time	Activation Time	License Quantity
1	12d Model - 12d Solutions - ec51470022	n/a	n/a	n/a	3

12d Product name

12d virtual dongle number

12d Customer name

Total number of licenses on the 12d dongle

For instructions on how to select and see CodeMeters on a particular Network Server, see [11.4.3 Getting Info on CodeMeters on a Particular Server - WebAdmin 5 on page 105](#)

If there are no **12d dongle numbers** displayed inside the 12d Network CodeMeter, or no **12d dongle number** starting with **ec**, contact your **12d Model Reseller**.

You need to make a note of the **12d dongle number** because there must be a valid entry with the matching **12d dongle number** in the **nodes.4d** file.

**Note:** The **WebAdmin** button is only selectable if the **CodeMeter Runtime Server** is running. If it is **Stopped**, to restart it again see [Step 6. Starting the 12d Network Server on page 63](#).

### Important Note:

There may be **more than one 12d dongle number** inside the one physical CodeMeter Container. That is why they are also referred to as **virtual** 12d dongles. For example,

two 12d dongle numbers in the CodeMeter

Number of licenses on each 12d dongle

Product Code	Name	Unit Counter	Valid Until	License Quantity	Feature Map
1	12d Model - Stock - 12d Solutions - ec51470113	n/a	n/a	5	n/a
1	12d Model - Stock - 12d Solutions - ec51470114	n/a	n/a	25	n/a

Within **12d Model**, it is possible to address specific 12d Network CodeMeters, and specific 12d dongles *within* a 12d Network CodeMeter. This is done via the **dongles.4d** file and how it is set up is described in [10.4.1.2 Updating dongles.4d Using the Dongles.4d Editor on page 68](#).

## Step 6.Starting the 12d Network Server

For a **12d Network CodeMeter** to be seen and used by other computers in the network, the **12d Network Server** needs to be running **on the computer with the 12d Network CodeMeter** on it.

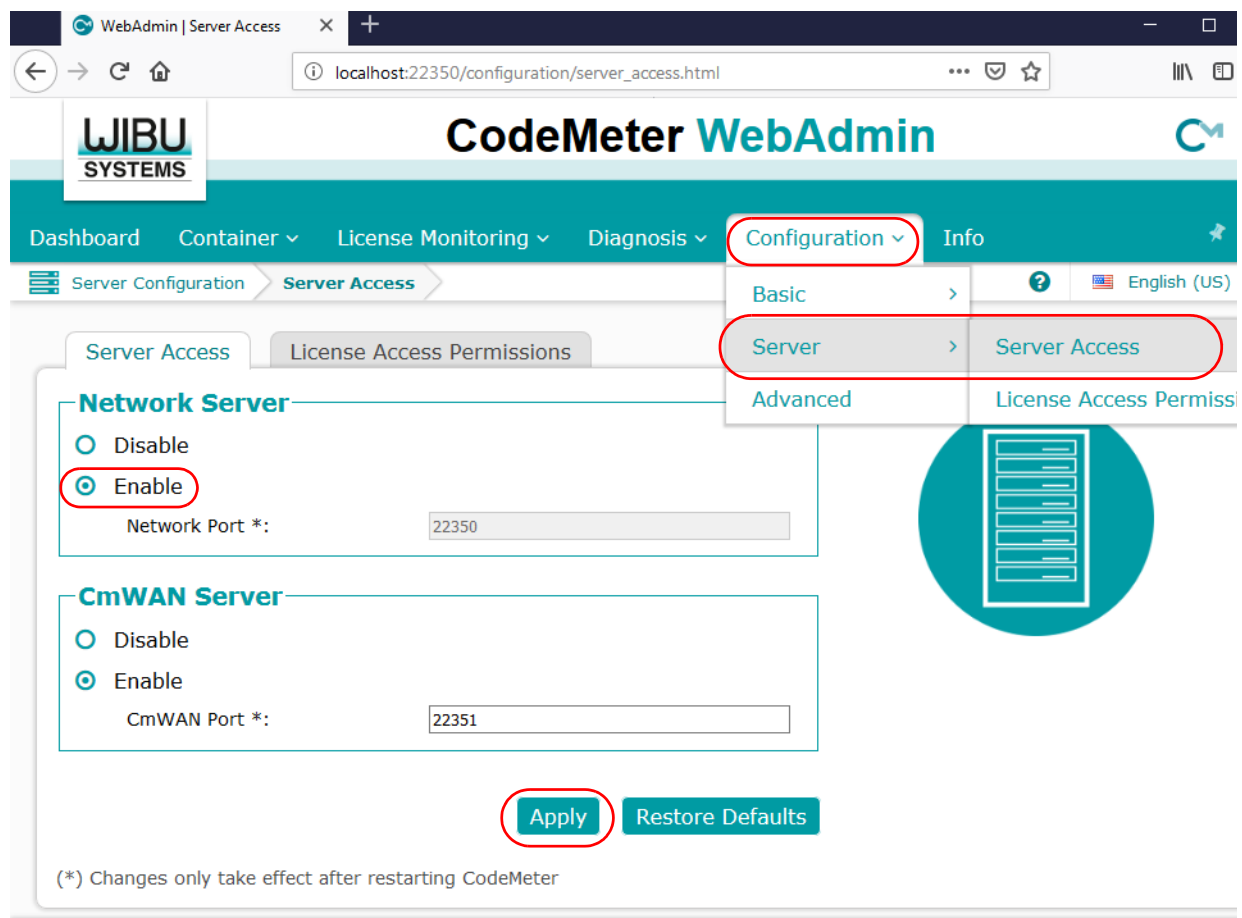
The **CodeMeter WebAdmin** panel is used to start the **12d Network Server**.

**Note:** The **12d Network Server** is controlled by the **CodeMeter Runtime Server** service so it is critical that the **CodeMeter Runtime Server** service is running.

To bring up the **CodeMeter WebAdmin** panel, click on the **WebAdmin** button on the **CodeMeter Control Center**.

### For WebAdmin 6:

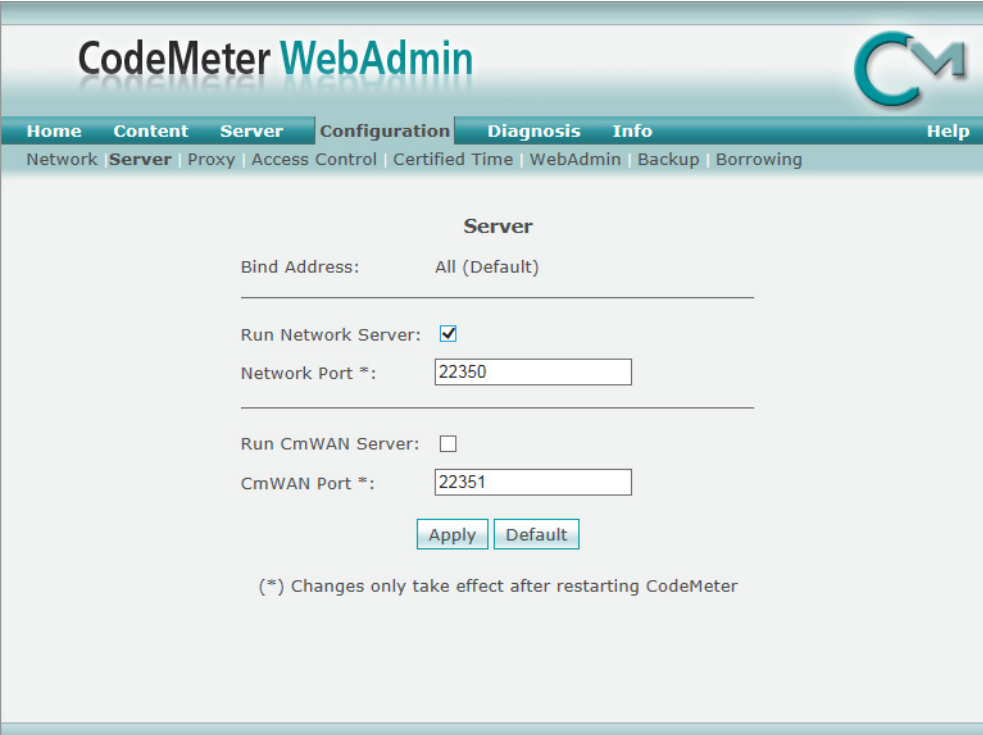
In the **CodeMeter WebAdmin** panel, click on the **Configuration >Server >Server access** menu.



Click on **Enable** and then **Apply**.

**For WebAdmin 5:**

In the **CodeMeter WebAdmin** panel, click on the **Configuration > Server** tab and then tick on **Run Network Server**.



The screenshot shows the CodeMeter WebAdmin interface. At the top, there's a header with the CodeMeter logo and a navigation bar with tabs: Home, Content, Server, Configuration, Diagnosis, Info, and Help. Below the navigation bar, there's a sub-navigation bar with links: Network, Server, Proxy, Access Control, Certified Time, WebAdmin, Backup, and Borrowing. The main content area is titled 'Server' and contains the following settings:

- Bind Address: All (Default)
- Run Network Server: ☒
- Network Port \*: 22350
- Run CmWAN Server: ☐
- CmWAN Port \*: 22351

At the bottom of the form, there are two buttons: 'Apply' and 'Default'. Below the buttons, a note states: '(\*) Changes only take effect after restarting CodeMeter'.

Click on **Apply** and a message **Operation completed successfully - please wait** will appear and when it disappears, the above panel is displayed again.

The **12d Network Server** should now be running.

Note that unlike the **CodeMeter Runtime Server** service, the **12d Network Server** is not a service and so will not appear in the **Windows Task Manager**.

The computer with the 12d Network CodeMeter is now ready to use as a **12d CodeMeter Server**.



## 10.4 dongles.4d and nodes.4d

For **12d Model** to be able to create and/or open existing projects, it requires

- (a) a license from a **12d dongle** inside a **12d Network CodeMeter**
- and
- (b) a valid entry with the **matching 12d dongle number** in the **nodes.4d** file

Once **dongles.4d** and **nodes.4d** have been updated, they must be the **nodes.4d** and **dongles.4d** files that are used for any computer wanting to use a **12d Model** license from the **12d Network CodeMeter**.

For updating **dongles.4d**, see [10.4.1 Modifying the dongles.4d file on page 65](#).

For updating **nodes.4d**, see [10.4.2 Installing a nodes.12d15n File on page 76](#).

### 10.4.1 Modifying the dongles.4d file

The **dongles.4d** file lists the computers to search for **12d Network CodeMeters**, **12d Local CodeMeters** and **12d Local Wibu** dongles to find **12d dongle numbers**.

It also defines **the order to search for CodeMeters and Wibus**.

When **12d Model** is installed on a computer, it installs a **dongles.4d** file that is configured to only look for **Local (standalone) CodeMeters** and **Local Wibus**.

For each computer that needs to access to a **12d Network CodeMeter**, a modification has to be made to the **dongles.4d** file used by that computer to tell **12d Model** to **search for a 12d Network CodeMeter** and not just use a **12d Local CodeMeter**.

The updated **dongles.4d** is then placed in the standard search path for a set up file for that computer and the particular version of **12d Model**. For example, for **12d Model 15**, the **dongles.4d** could be in c:\12d\15.00\User. Or it uses a file pointed to by the environment variable **DONGLES\_4D** in **env.4d**. This means that the **dongles.4d** file could be on the one central computer and accessed by all the other computers.

#### Important Note

In the initial **12d Model** installation, the **dongles.4d** file is a set up file and is installed in the **Set\_ups** folder under the **12d Model** version number.

For example, for **12d Model 15**

**Program files\12d\12dmodel\15.00\Set\_ups**

All the files in **Set\_ups** are supplied by **12d Solutions** and must not be modified. Hence in updating the default **dongles.4d** file, the procedures outlined will modify a copy of the **dongles.4d** file.

The editing of **dongles.4d** **does not** have to be on the computer that the **12d Network CodeMeter** is on. It can be done from any computer.

There are two ways that the **dongles.4d** file can be modified:

1. Using the **Dongles.4d Installer** program on a **dongles.12d15d** file

If **12d Model** is **V15 C1m** or later, then during the installation an association has been set up for \*.12d15d files to file up the **Dongles.4d Installer** program. See [10.4.1.1 Installing using the dongles.12d15d file on page 66](#).

## 2. Updating the **dongles.4d** file using the **Dongled.4d Editor**

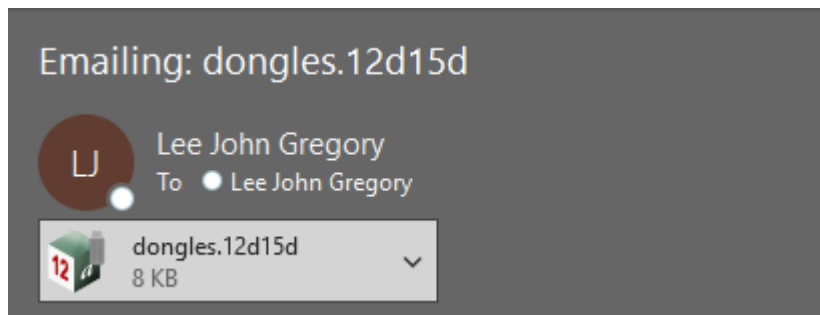
The **dongles.4d** file can also be updated using a text editor. See [10.4.1.2 Updating dongles.4d Using the Dongles.4d Editor on page 68](#).

### 10.4.1.1 Installing using the **dongles.12d15d** file

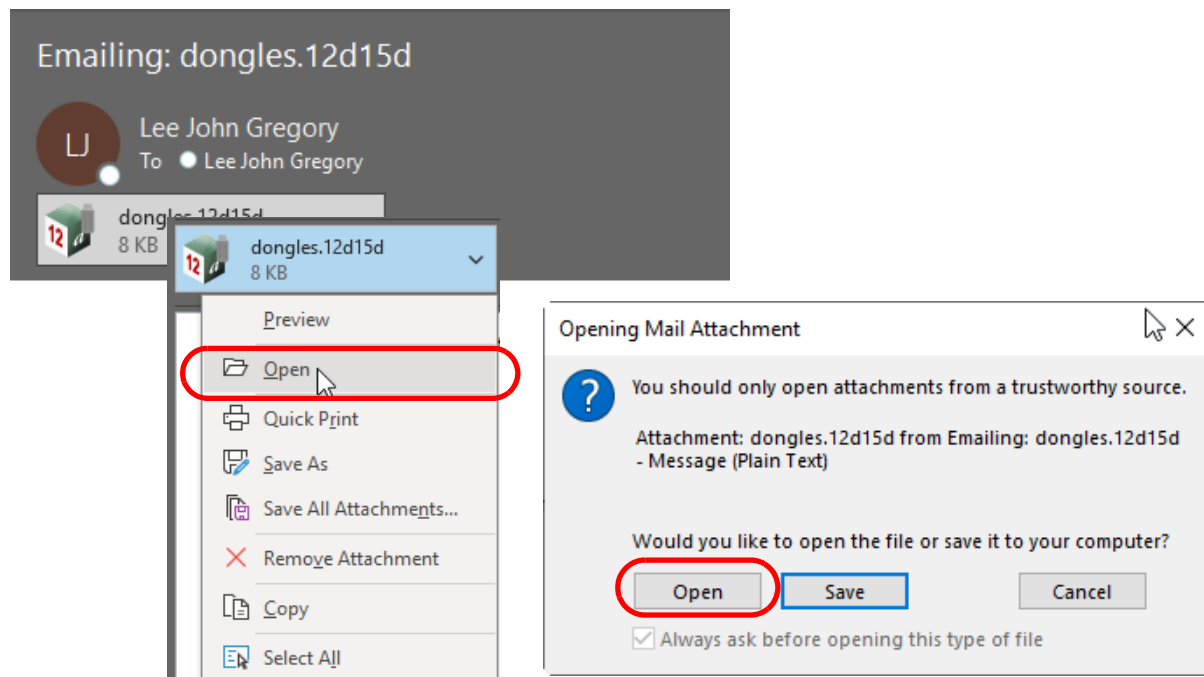
When **12d Model xx** is installed, a *Windows* file association is created so that a **\*.12dxxd** file is recognised and it brings up the **Install a 12d Model xx Dongles File** panel which is used to update a **dongles.4d** file with the dongles information in the **.12dxxd** file.

So to update your **dongles.4d** file, a file called **dongles.12dxxd** where **xx** is the **12d Model** version number, will be emailed to you by your local **12d Model** Reseller.

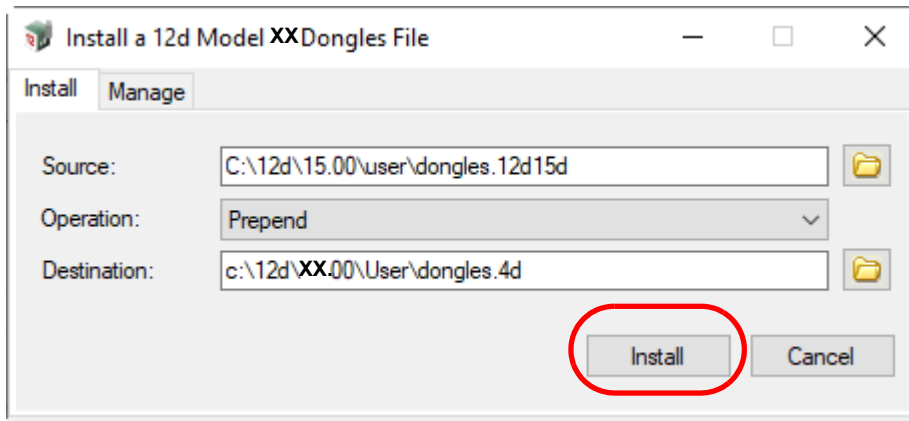
For example, for **12d Model 15**, the file is called **dongles.12d15d**



In the email, double click on the files **dongles.12dxxd** and the **Opening Mail Attachment** panel comes up,



Clicking on **Open** brings up the **Install a 12d Model xx Dongles File** panel.



The choices for **Operation** are:

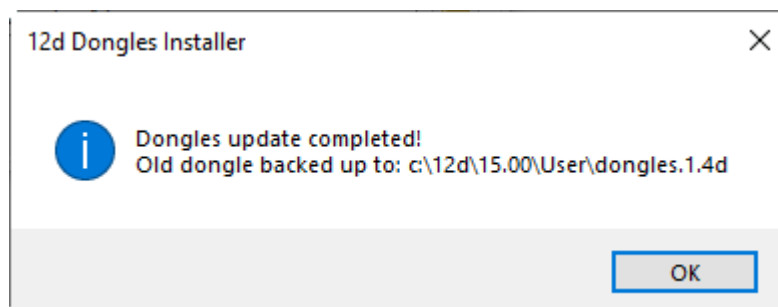
**Prepend** - if a **dongles.4d** file already exists, the information in the **dongles.12dXXs** file is added to the **beginning** of the existing dongles file. A backup up copy of the existing **dongles.4d** is created.

**Replace** - if a **dongles.4d** file already exists, it is replaced by a new **dongles.4d** file with the information in the **dongles.12dxxd** file in the new nodes file. A backup copy of the existing **dongles.4d** is created.

**Append** - if a **nodes.4d** file already exists, the information in the **nodes.12dxxd** file is added to the end of the existing dongles file. A backup copy of the existing **dongles.4d** is created.

Select **Replace**, **Append** or **Prepend** and then click **Install**.

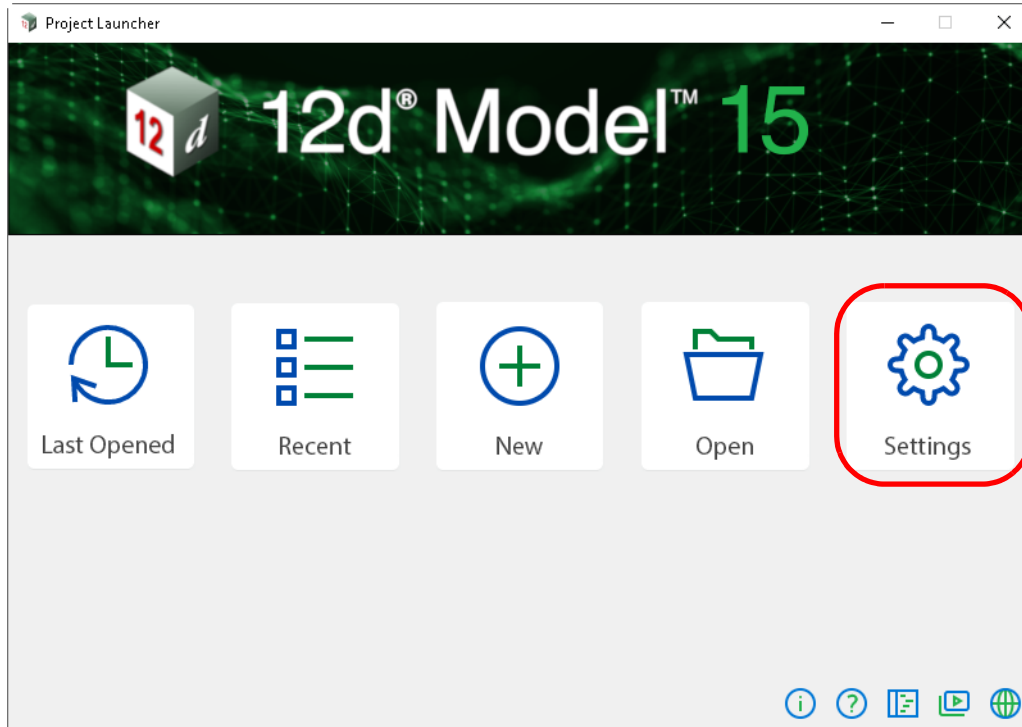
The new/updated **dongles.4d** file is created in the **Destination** folder (default is **C:\12d\xx.00\User**) and if a **dongles.4d** file already existed, a backup copy of it is made.



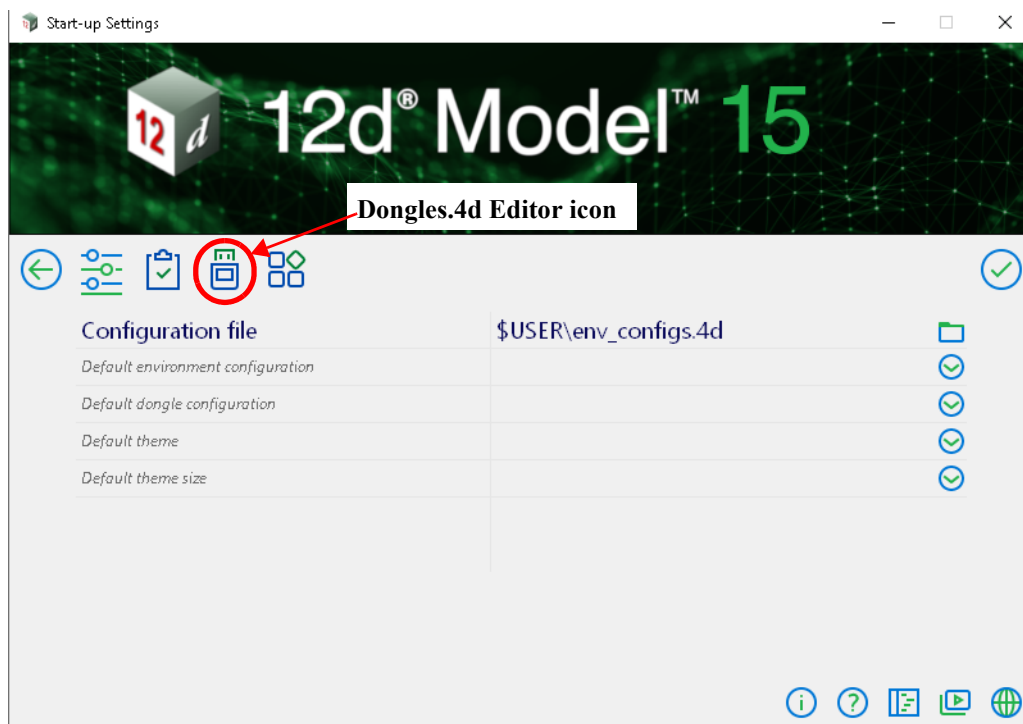
For the updating of **nodes.4d**, see [10.4.1.2 Updating dongles.4d Using the Dongles.4d Editor on page 68](#).

#### 10.4.1.2 Updating dongles.4d Using the Dongles.4d Editor

To edit the **dongles.4d** file using the **Dongles.4d Editor**, start up the **Project Launcher** for **12d Model** BUT it is not necessary to open a **12d Model** project. The current **dongles.4d** file can be edited by simply starting up **12d Model** by clicking on the **12d 15** icon to bring up the Project Launcher:



Clicking on **Settings** displays the **Start-up Settings** panel and then click on the **dongles.4d editor** icon to bring up the **Dongles.4d Editor** panel.



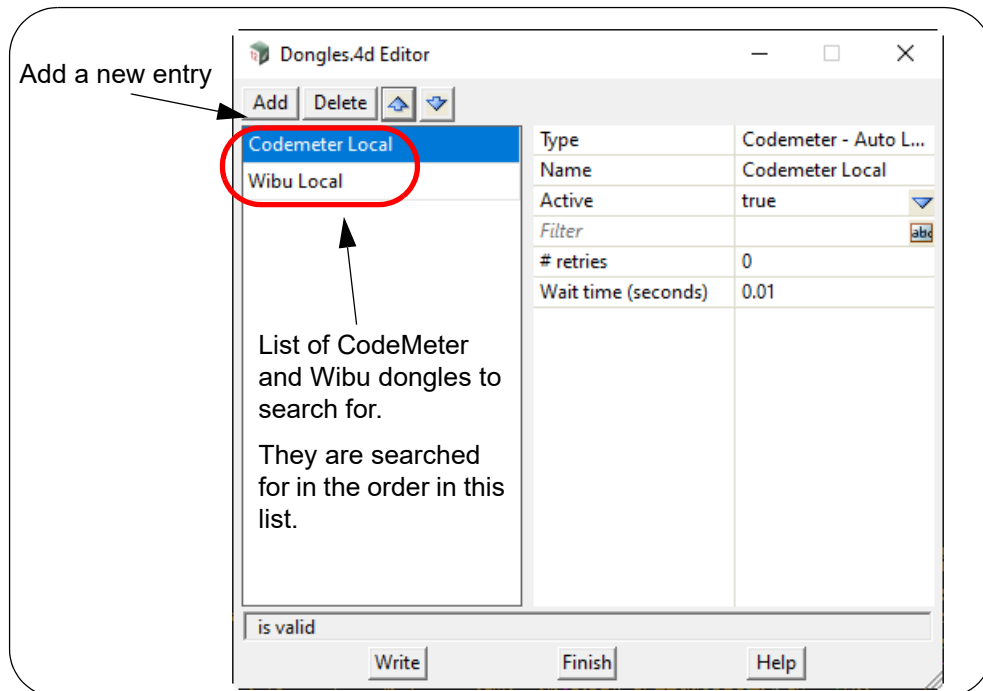
**Note:**

Or if the **12d Model** you are running is already authorised and you are in an open project, you can access the **Dongles.4d Editor** by picking the option

**Projects =>Management =>Dongles =>Dongles.4d editor**

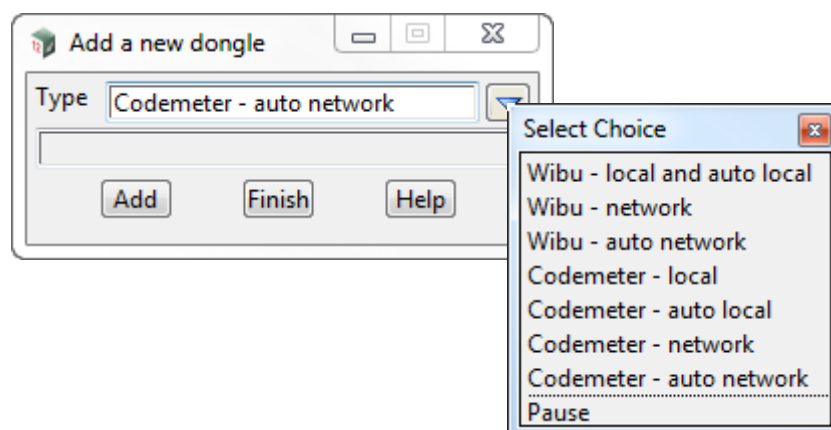
Both methods bring up the **Dongles.4d Editor** panel.

If the **dongles.4d** is the one installed with **12d Model** then it will only be looking for **Local** (standalone) **CodeMeters** and Local (standalone) **Wibus**:



What it needs in the list is an entry to tell **12d Model** to look for **your 12d Network CodeMeter**.

To **Add** a new entry to dongles.4d, click on the **Add** button which then bring up the **Add a New Dongle** panel.

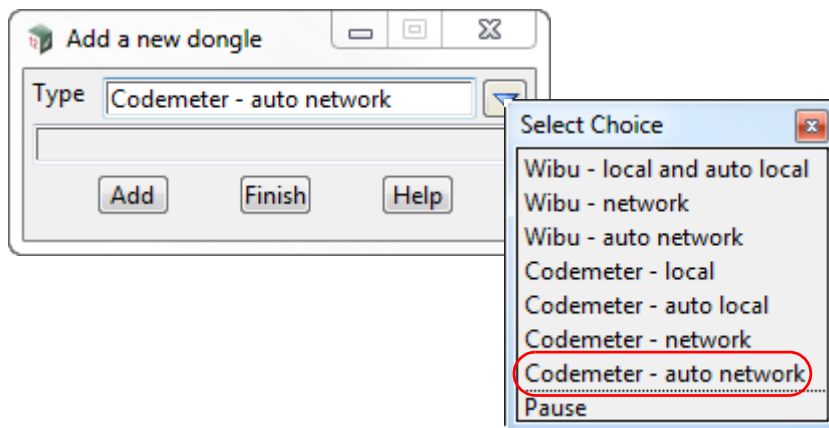


To add an entry to search for all Network CodeMeter on the network, see [10.4.1.2.1 Search for any 12d Network CodeMeter on page 70](#).

To add an entry to use a particular 12d dongle number in a particular 12d Network CodeMeter, see [10.4.1.2.2 Using a 12d Dongle Number in a 12d Network CodeMeter on page 73](#).

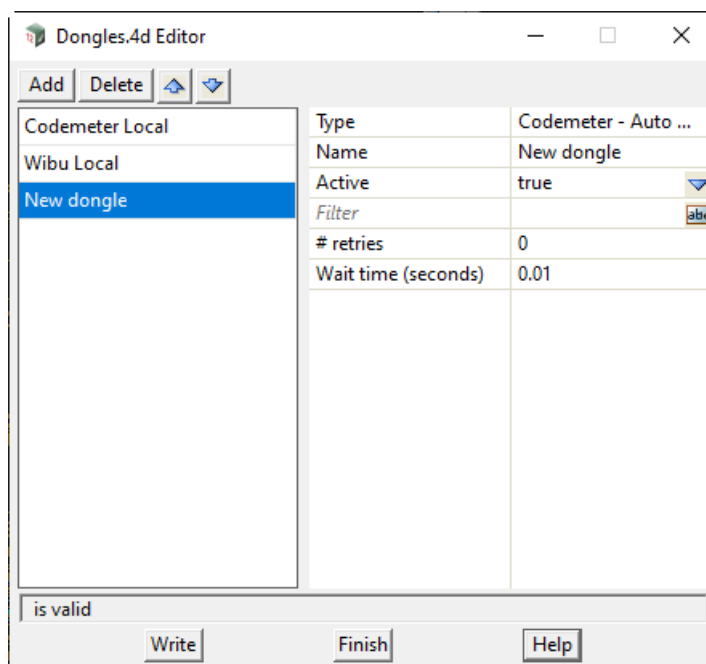
#### 10.4.1.2.1 Search for any 12d Network CodeMeter

The simplest entry to add is the one that searches for all 12d Network CodeMeters on the network.



For this case, select **CodeMeter - auto network** for **Type** and then click on **Add**.

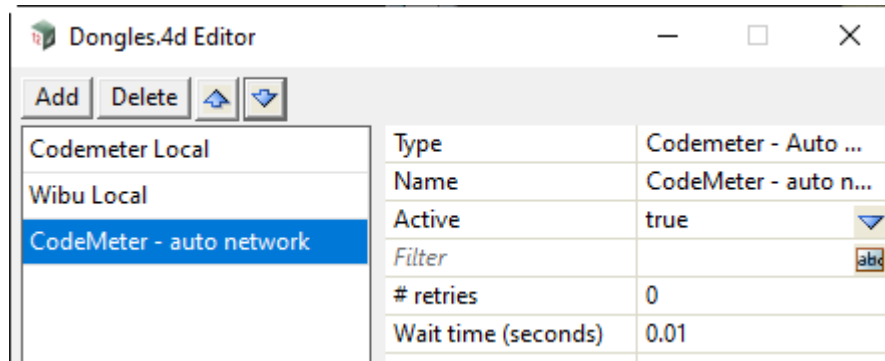
A new entry with the default name **New dongle** is added to the bottom of the list.



Click in the **Name** field and change **New dongle** to whatever you want, say **CodeMeter - auto network**.

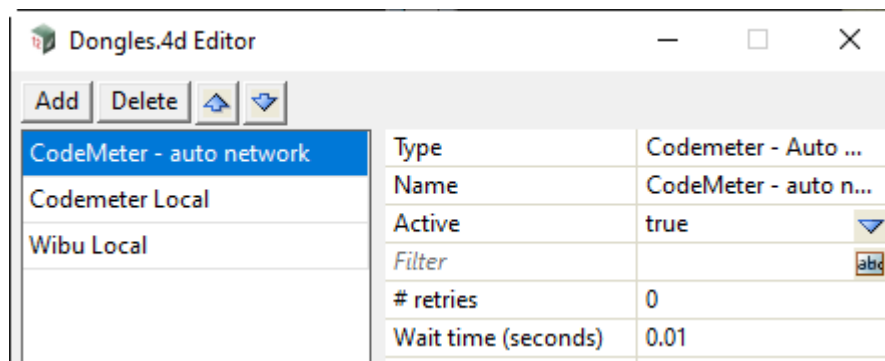
The order in the list is the order that **12d Model** searches to find a valid dongle.

For example if you want to always search for a **local dongle BEFORE the 12d Network CodeMeter** then leave the order as it is.

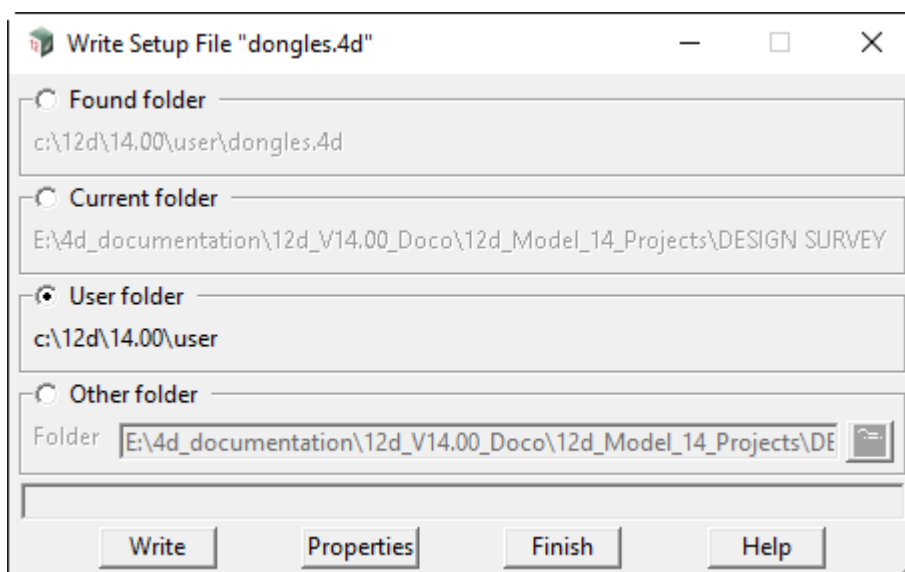


This is what is normally wanted. That is, use a local dongle if it exists, otherwise use a network license.

If you want to always search for a **12d Network CodeMeter BEFORE** a **local dongle** then use the Up arrow icon to move the **CodeMeter - auto network** to the top of the list. This is rarely wanted.



To save the information to the **dongles.4d** file, press **Write** to bring up the **Write Setup File "dongles.4d"** panel.



Tick on **User folder** and then on **Write**.

For any computer wanting to use a **12d Model** license from a 12d Network CodeMeter, the

updated **dongles.4d** must be placed in the standard search path for the **User** folder, or in the folder pointed to by the environment variable **USER\_4D** in **env.4d**, or is the file pointed to by the environment variable **DONGLES\_4D** in **env.4d**.

Using **DONGLES\_4D** means that the **dongles.4d** file could be on a central computer that can be accessed by all the other Client computers.

**Note:**

If you don't want to search for a Local dongle at all. simply highlight the **Local** entries and click on the delete icon to delete them.

**WARNING**

Projects can have a local *dongles.4d* file and when the project is selected, the local *dongles.4d* is used before any other *dongles.4d*. If the local file does not have the correct network information in it then the authorization will fail because **12d Model** is no longer being instructed to use the Network CodeMeter.



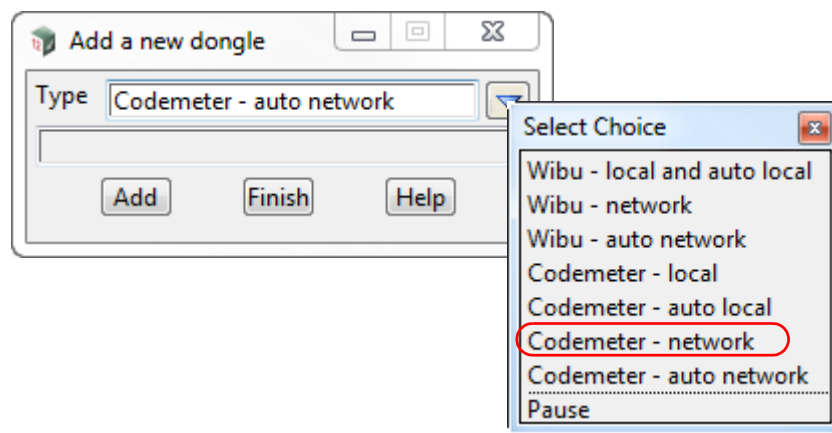
#### 10.4.1.2.2 Using a 12d Dongle Number in a 12d Network CodeMeter

To point to a particular **12d dongle number**, it helps to know the **physical** CodeMeter number that the **12d dongle number** is in.

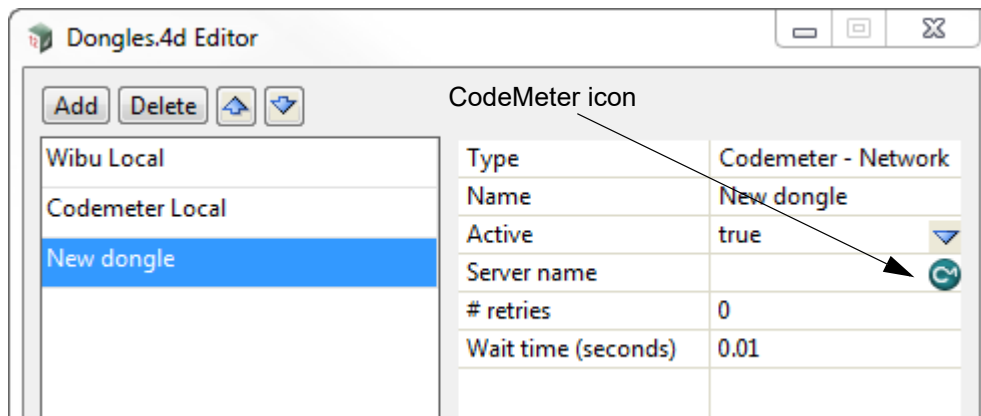
If you don't already know this, the CodeMeter WebAdmin panel can be used to look inside the Network CodeMeter. See [Step 5. Checking the Virtual 12d Virtual Dongles Inside the Network CodeMeter on page 60](#).

**Note:** if you still don't know what Network CodeMeter the 12d dongle is in, it is possible to find it when using the **Dongles.4d Editor** but you will need to look through the list of physical CodeMeter numbers and see which one contains the required 12d dongle number.

In the **Add a New Dongle** panel, for the case of using a particular 12d dongle number, select **CodeMeter - network** for **Type** and then click on **Add**.



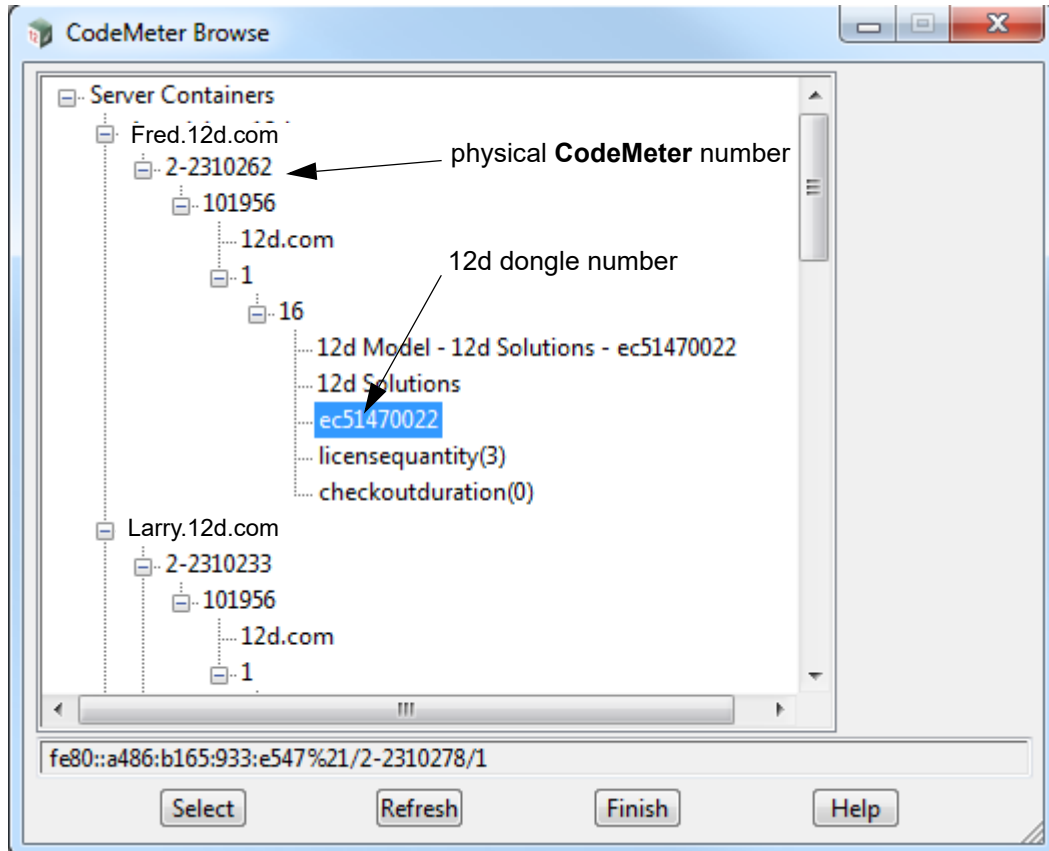
A new entry with the default name **New dongle** is added to the bottom of the list.



Click in the **Name** field and change **New dongle** to whatever you want but it helps to have the 12d dongle number in the name. For example **CodeMeter - ec51470022**

Next click on the **CodeMeter** icon at the end of the **Server name** field.

This will bring up the **CodeMeter Browse** panel that searches for all the 12d Network CodeMeters on the network and for all the **12d dongle numbers** in them, and presents the results in a tree.



Scroll down the tree until you find the **12d dongle number** you are after and click on it.

This will then write what is called the **CMUNC** to the **Server name** field.

#### Aside:

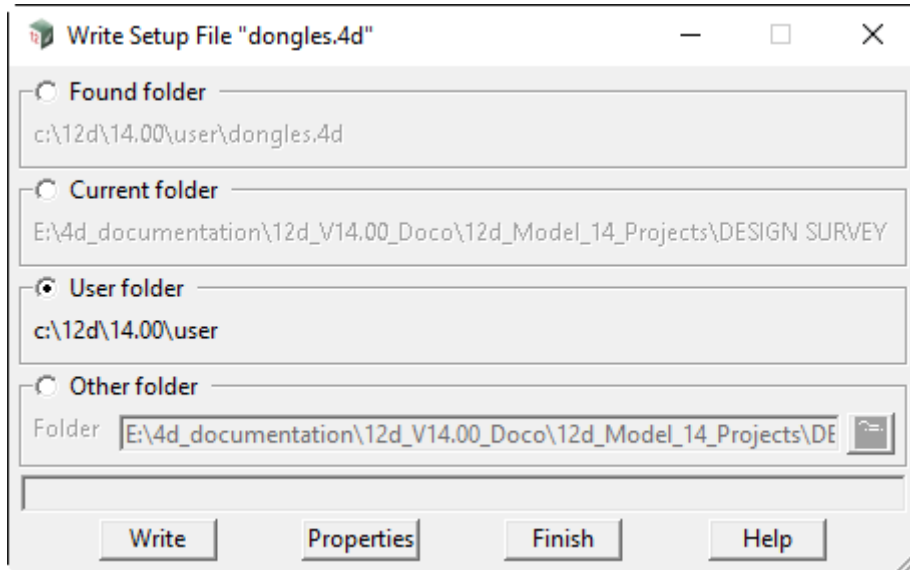
CMUNC is the 12d CodeMeter Universal Naming Convention. An example would be

`//server_name.12d.com/2-2310242/1/16`

where **server\_name** is the server name (Fred) with .12d.com added to it, followed by CodeMeter serial number (2-2310242), then the product code (1), and the final part being the instance within that product code that contains the 12d dongle number.

**Note:** The instance can only be found by using the **CodeMeter Browse** panel.

To save the information to the **dongles.4d** file, press **Write** to bring up the **Write Setup File "dongles.4d"** panel.



Tick on **User folder** and then on **Write**.

For any computer wanting to use a **12d Model** license from a 12d Network CodeMeter, the updated **dongles.4d** must be placed in the standard search path for the **User** folder, or in the folder pointed to by the environment variable **USER\_4D** in **env.4d**, or is the file pointed to by the environment variable **DONGLES\_4D** in **env.4d**.

Using **DONGLES\_4D** means that the **dongles.4d** file could be on a central computer that can be accessed by all the other Client computers.

#### WARNING

Projects can have a local *dongles.4d* file and when the project is selected, the local *dongles.4d* is used before any other *dongles.4d*. If the local file does not have the correct network information in it then the authorization will fail because **12d Model** is no longer being instructed to use the 12d Network CodeMeter.

For the updating of **nodes.4d**, see [10.4.2 Installing a nodes.12d15n File on page 76](#).

## 10.4.2 Installing a nodes.12d15n File

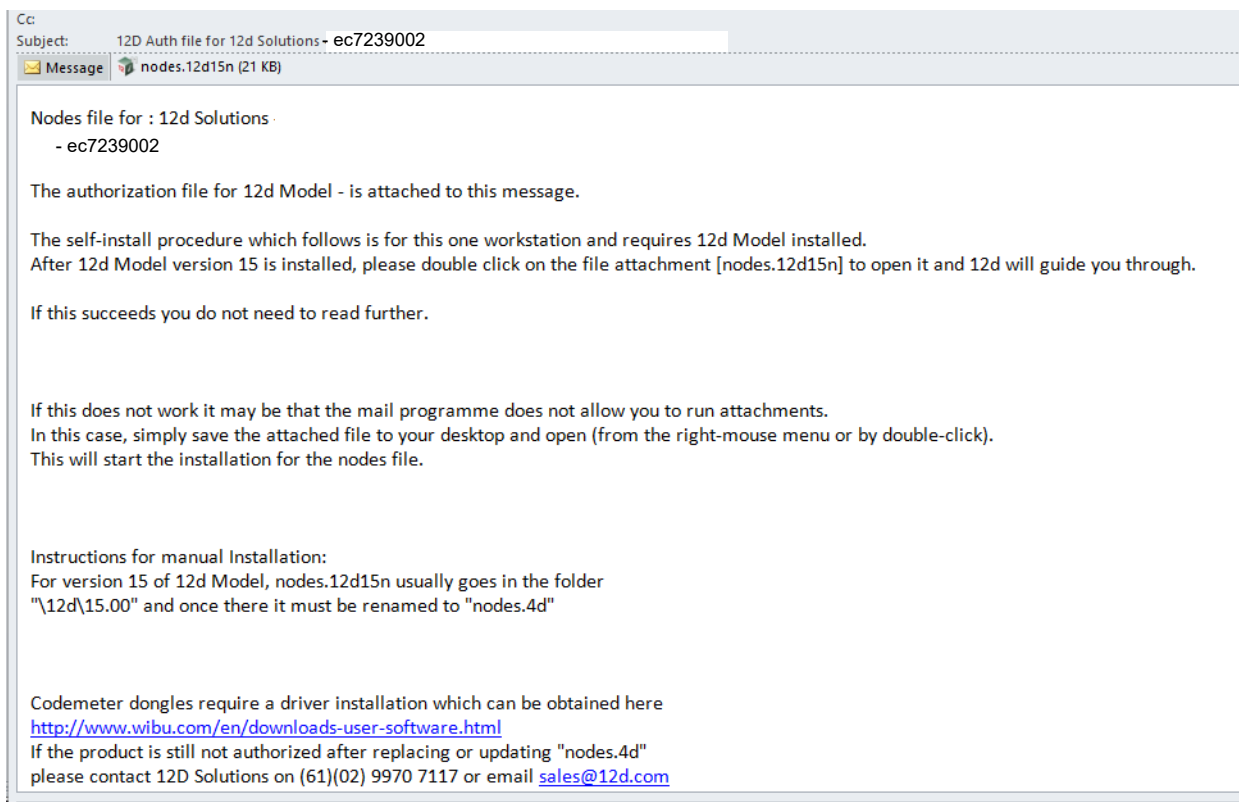
**12d Model** will not create new projects or open an existing project without an authorisation file called **nodes.4d** with valid information in it.

The information inside **nodes.4d** controls

- (a) **which 12d dongles** are authorized to run **12d Model**
- (b) what **version** of **12d Model** will run for a 12d dongle
- (c) what **modules** are authorized for a particular 12d dongle

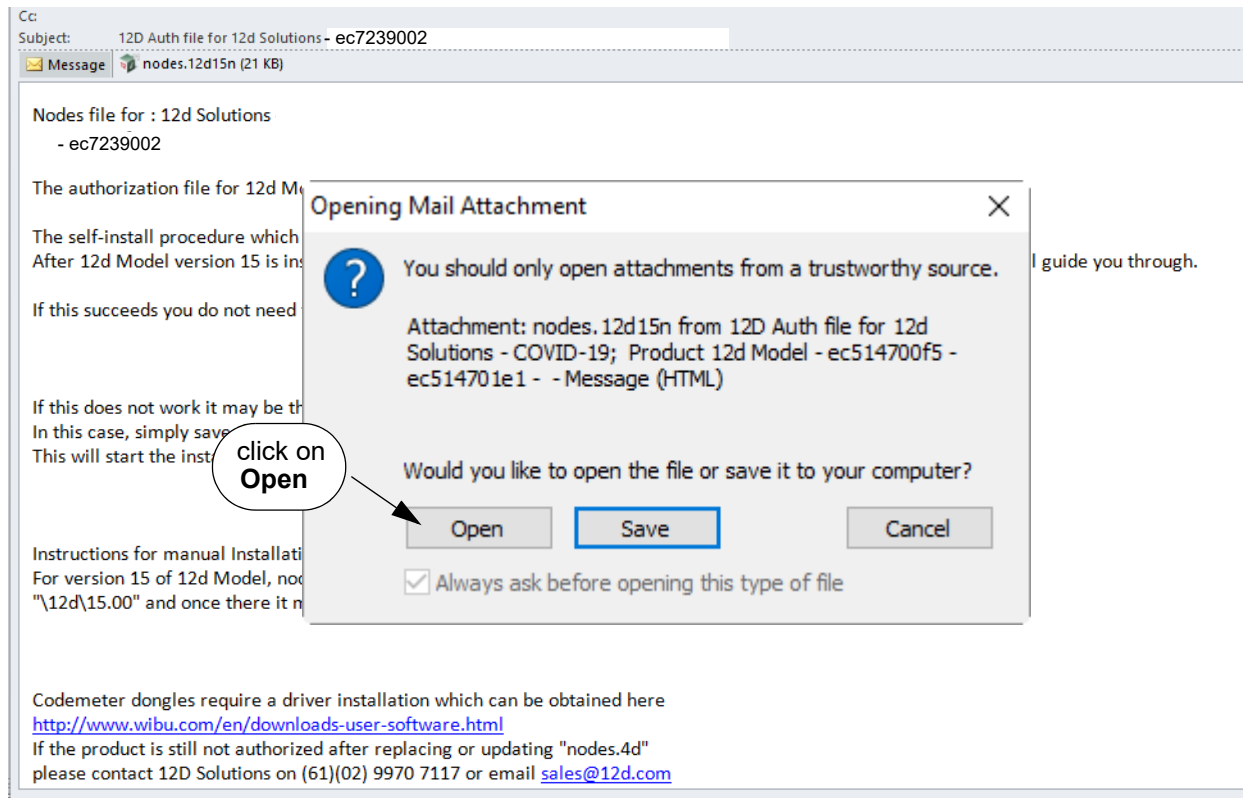
To authorize **12d Model** to run with **your 12d dongles**, a file called **nodes.12dxxn** where **xx** is the **12d Model** version number, will have been emailed to you by your local **12d Model** Reseller.

For example, for **12d Model 15** the file will be called **nodes.12d15n**

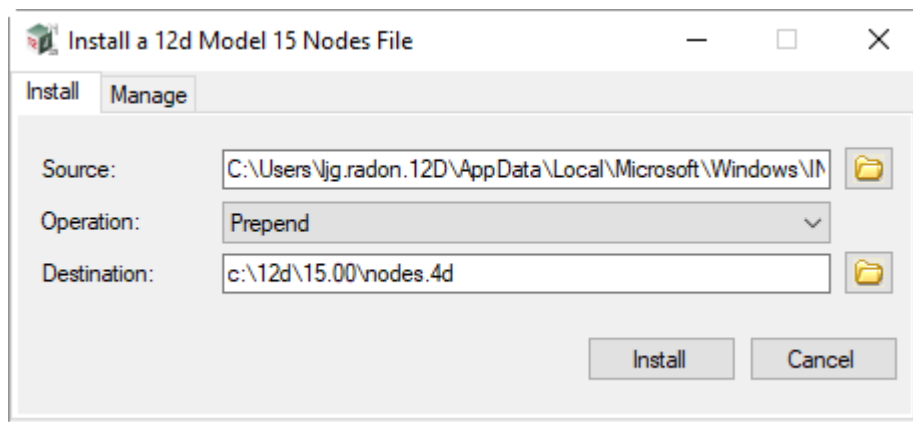


Installing **12d Model** on a computer sets up a *Windows* file association so that a **nodes.12dxxn** file is recognised brings up the **Install a 12d Model xx Nodes File** panel which is used is to install a **nodes.4d** file in the correct location.

In the email, double click on the files **nodes.12dxxn** and the **Opening Mail Attachment** panel comes up.



Click on **Open** and then the **Install a 12d Model xx Nodes File** panel appears.



The choices for **Operation** are:

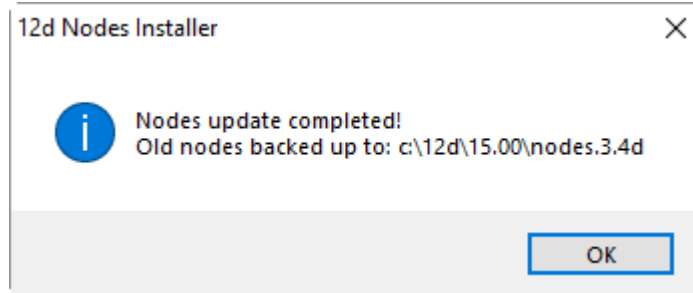
**Prepend** - if a **nodes.4d** file already exists, the information in the **nodes.12dxxn** file is added to the beginning of the existing **nodes.4d** file. A backup up copy of the existing **nodes.4d** is created **THIS IS THE NORMAL CHOICE**.

**Replace** - if a **nodes.4d** file already exists, it is replaced by a new **nodes.4d** file with the information in the **nodes.12dxxn** file in it. A backup up copy of the existing **nodes.4d** is created.

**Append** - if a **nodes.4d** file already exists, the information in the **nodes.12dxxn** file is added to the end of the existing **nodes.4d** file. A backup up copy of the existing **nodes.4d** is created. **THIS IS RARE**.

Select **Prepend**, **Replace** or **Append** and then click **Install**.

The new/updated **nodes.4d** file is created in the **Destination** folder (default is **C:\12d\xx.00**) and if a **nodes.4d** file already existed, a backup copy of it is made.



**Note** - if you don't have the file **nodes.12dxxn** attached to an email but instead have the file in a folder accessible from your computer, then you can do the following:

If there is a **nodes.12dxxn** file, double click on that file and the **Install a 12d Model Nodes File** panel should appear and you continue with the instructions above.

If that doesn't work, start up **12d Model xx** and click on the **Nodes.4d** button at the bottom of the **Open a Recent Project** panel. This will also bring up the **Install a 12d Model Nodes File** panel and you can browse for the **nodes.12dxxn** file in the **Source** panel field. You can then continue with the instructions above.

For any computer wanting to use a **12d Model** license from a 12d Network CodeMeter, the updated **nodes.4d** is then placed in the standard search path for the **User** folder.

For example, for **12d Model 15** a **nodes.4d** in c:\12d\15.00, or a file pointed to by the environment variable **AUTHORIZATION\_4D** in **env.4d**.

Using **AUTHORIZATION\_4D** means that the **nodes.4d file** can be on a central computer and accessed by all the other Client computers.

Now that the **dongles.4d** file and the **nodes.4d** file have been updated, any computer on the network that has the CodeMeter drivers installed and has the updated **dongles.4d** and **nodes.4d** file should be able to obtain a **12d Model** license from a Network CodeMeter. That is, it becomes a **12d CodeMeter Client**.

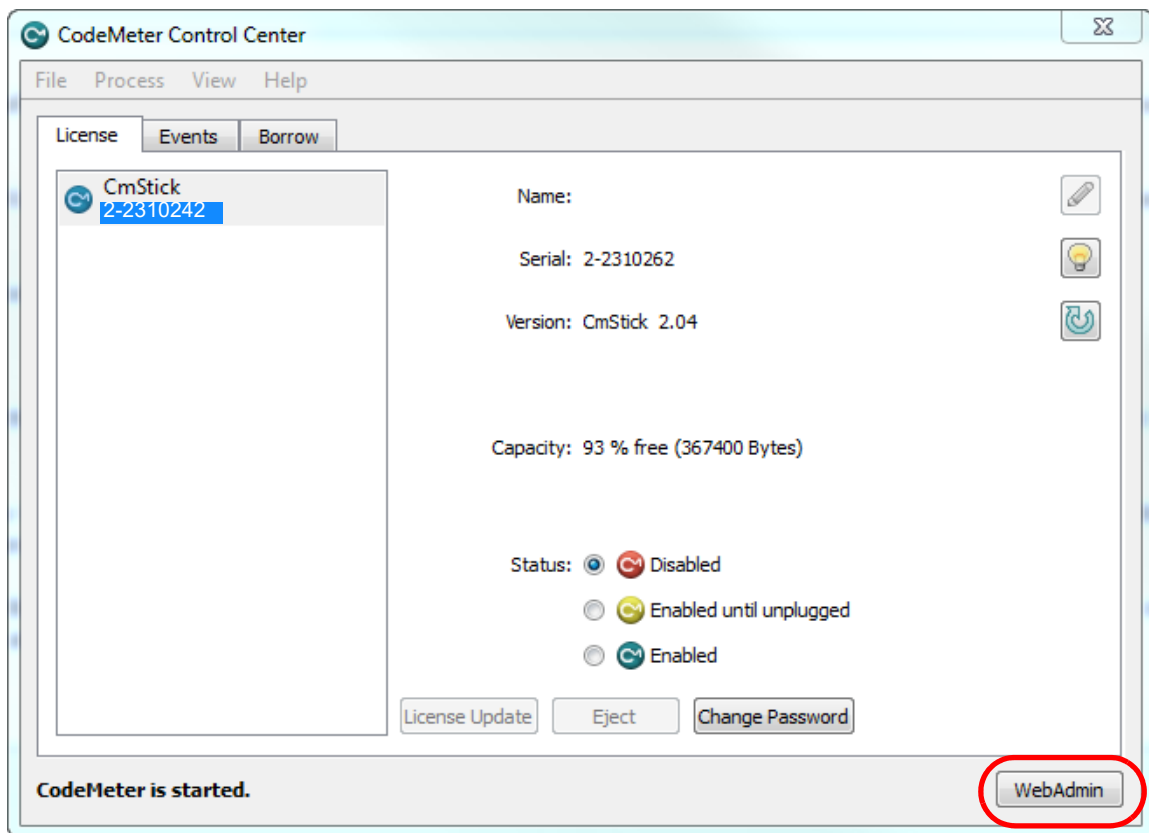
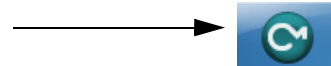
This ends the notes for setting up the **12d CodeMeter Server** and any **12d CodeMeter Clients**.

# 11 CodeMeter Control Center & WebAdmin

The **CodeMeter Control Center** is used on a particular computer to display which CodeMeters are on the computer the Control Centre is being run on, to stop and start the **CodeMeter Runtime Server** service on the computer, Certify CodeMeters on the computer and to update the contents of any CodeMeters on the computer. It can also bring up the **CodeMeter WebAdmin** panel.

The **CodeMeter WebAdmin** can do whatever the Control Centre can do but it can work on CodeMeters on **ANY** computer that are visible on the network and it has permission to access.

To bring up the **CodeMeter Control Center**, click on the **CodeMeter** icon that was installed on your task bar.



Options under the **Process** menu can start and stop the **CodeMeter Runtime Server** service on the computer. See [11.1 Stopping & Starting the CodeMeter Runtime Server on page 80](#))

The **License Update** button is for reporting on, and updating the information about **12d Model** licenses for any CodeMeter (Network or Standalone) attached to **this** computer. See [11.5 Updating Licenses in Network CodeMeters on page 111](#)).

The **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about **12d Model** licenses for **any** CodeMeter (Network or Standalone) that is visible on the computer network. See [11.8 Which Version of WebAdmin? on page 120](#).

## 11.1 Stopping & Starting the CodeMeter Runtime Server

Some changes to CodeMeter configurations on a computer require that the **CodeMeter Runtime Server** service is restarted on the computer. In these cases, there is usually a message to say **Changes only take effect after restarting CodeMeter**.

The stopping and starting of the CodeMeter Runtime Server on a particular computer can be done from running **CodeMeter Control Center** on that computer, or **WebAdmin** can be used to stop and start the CodeMeter Runtime Server on any computer that has access to and adequate permissions.

See

[11.1.1 CodeMeter Runtime Server - Control Centre on page 81](#)

[11.1.2 CodeMeter Runtime Server - WebAdmin on page 84](#)



### 11.1.1 CodeMeter Runtime Server - Control Centre

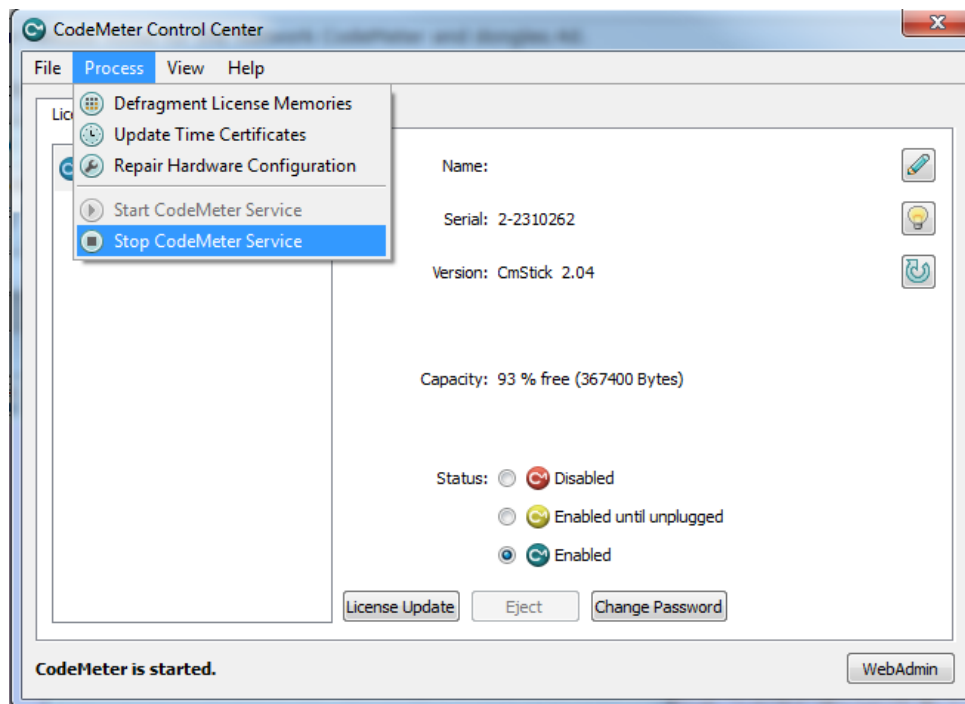
Click on the **CodeMeter** icon that was installed on your task bar to bring up the **CodeMeter Control Center**.



Clicking on the **WebAdmin** button on the **CodeMeter Control Center** brings up the **CodeMeter WebAdmin**.

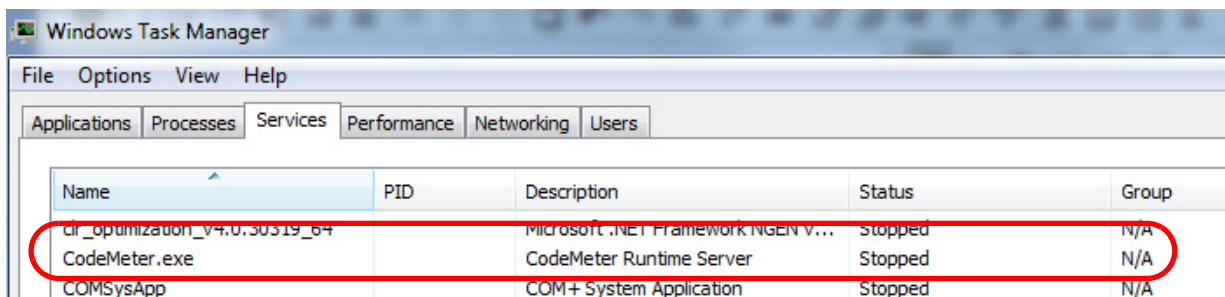
**For WebAdmin 6:**

To **stop** the **CodeMeter Runtime Server** service, click on **Process > Stop CodeMeter Service** in the **CodeMeter Control Center**.

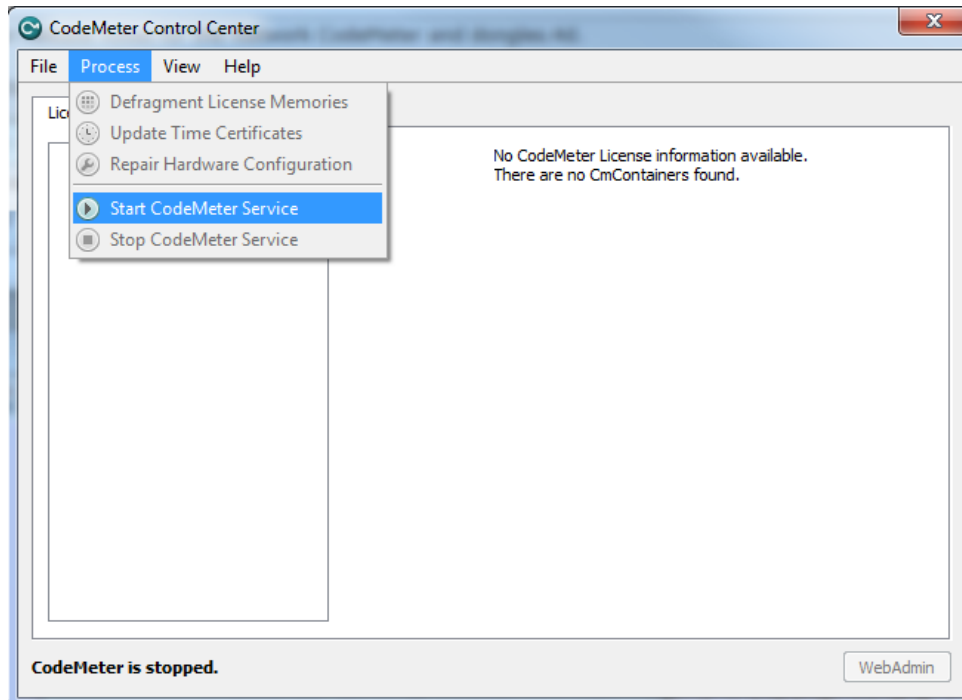


You will be asked to confirm that this is to be done.

The **CodeMeter Control Center** will then reappear with no CodeMeters being found on the computer and if you look in the Windows Task Manager, the **CodeMeter Runtime Server** service will be shown as **Stopped**.

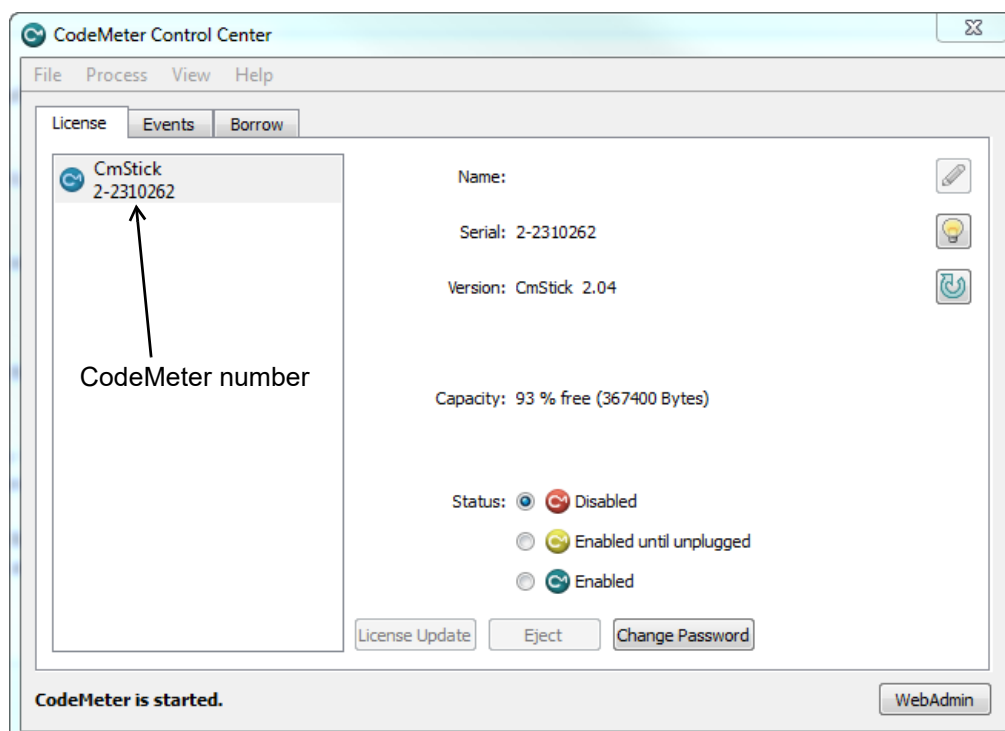


To **start** the **CodeMeter Runtime Server** service, click on **Process > Start CodeMeter Service** in the **CodeMeter Control Center**.

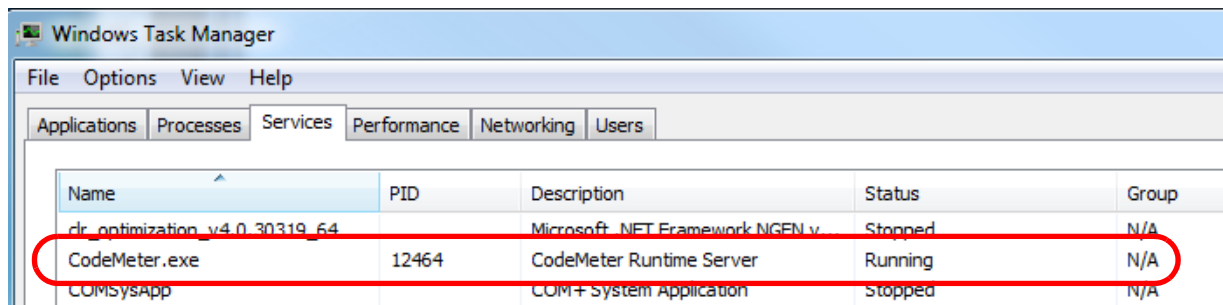


You will be again be asked to confirm that it is to be done.

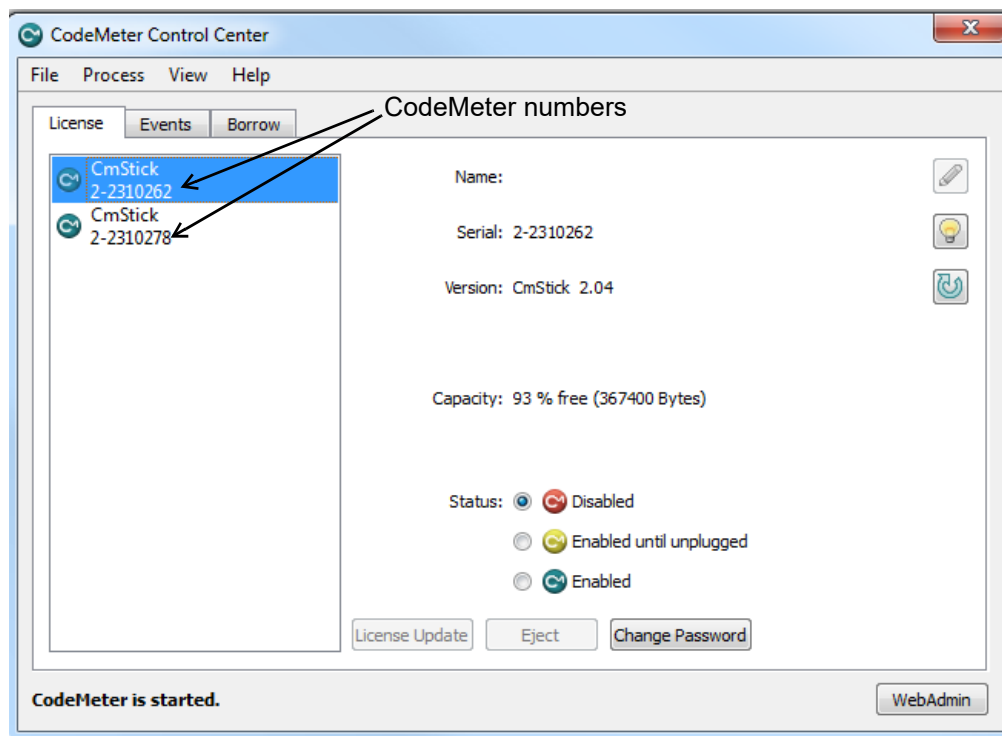
After a short time, the **CodeMeter Control Center** panel will then reappear displaying the CodeMeters on this computer.



If you look in the Windows Task Manager, the **CodeMeter Runtime Server** service will be shown as **Running**.



**Note:** There may be more than one **CodeMeter** attached to the computer. For example



**Warning:** Access to **all** the CodeMeters on the computer is stopped by stopping the **CodeMeter Runtime Server** service.

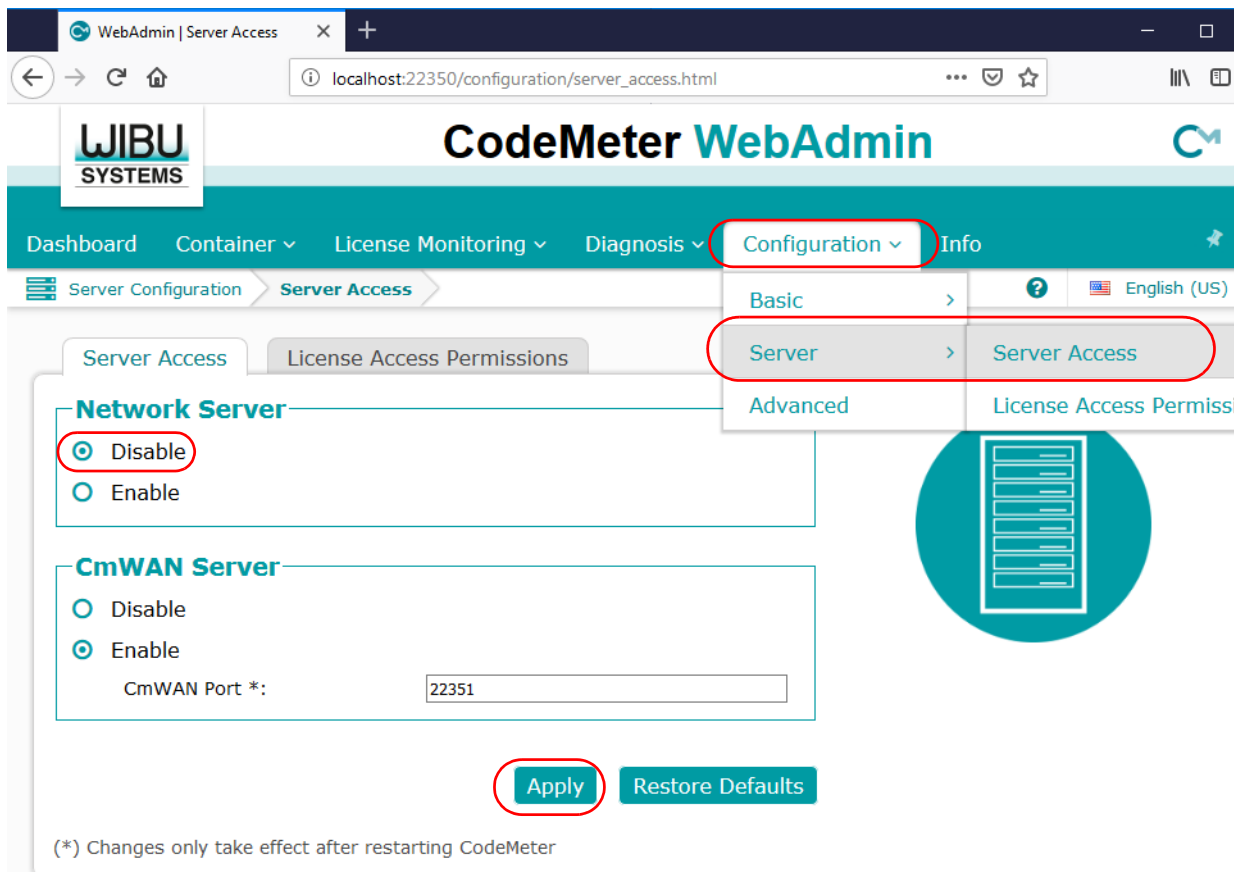
## 11.1.2 CodeMeter Runtime Server - WebAdmin

To bring up the **CodeMeter WebAdmin** panel, click on the **WebAdmin** button on the **CodeMeter Control Center**.

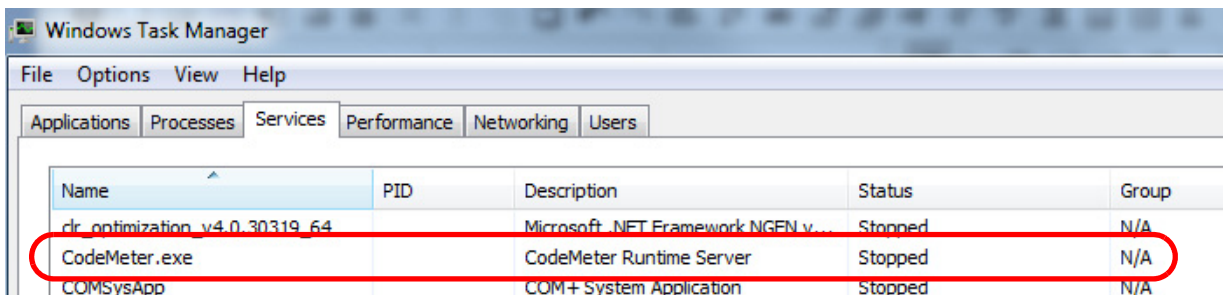
### For WebAdmin 6:

For instructions on how to select and see CodeMeters on a particular Network Server, see [11.4.1 Getting Info on CodeMeters on a Particular Server - WebAdmin 6 on page 98](#)

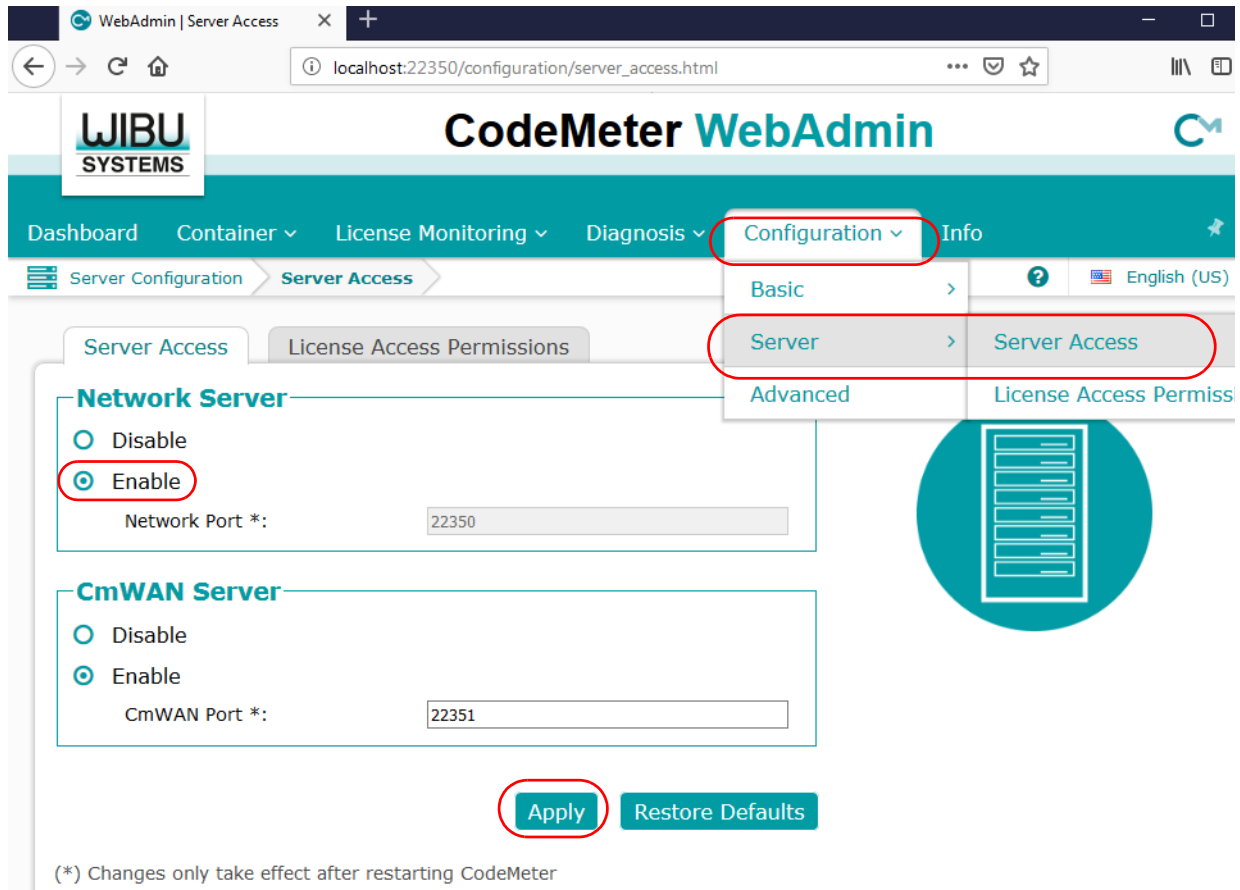
Once the required Computer is selected in the **CodeMeter WebAdmin** panel, to **stop** the Network Server, click on the **Configuration > Server > Server access** menu, then select **Disable** and finally click on **Apply**.



The **CodeMeter Control Center** will then reappear with no CodeMeters being found on the computer and if you look in the Windows Task Manager, the **CodeMeter Runtime Server** service will be shown as **Stopped**.

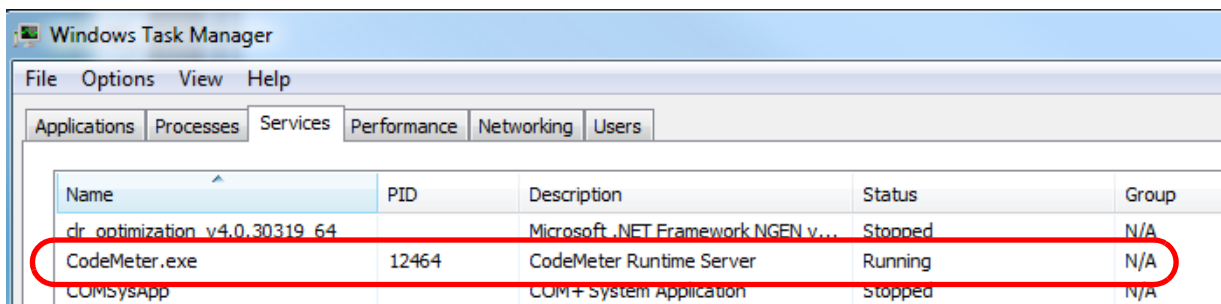


To **start** the **CodeMeter Runtime Server** service, click on the **Configuration > Server > Server access** menu, then select **Enable** and finally click on **Apply**



You will be again be asked to confirm that it is to be done.

If you look in the Windows Task Manager, the **CodeMeter Runtime Server** service will be shown as **Running**.



**Warning:** Access to **all** the CodeMeters on the computer is stopped by stopping the **CodeMeter Runtime Server** Service.

## 11.2 Port Address for CodeMeter Communication

For **CodeMeter WebAdmin 6**, see [11.2.1 Port Address - WebAdmin 6 on page 86](#)

For **CodeMeter WebAdmin 5**, see [11.2.2 Port Address - WebAdmin 5 on page 87](#).

### 11.2.1 Port Address - WebAdmin 6

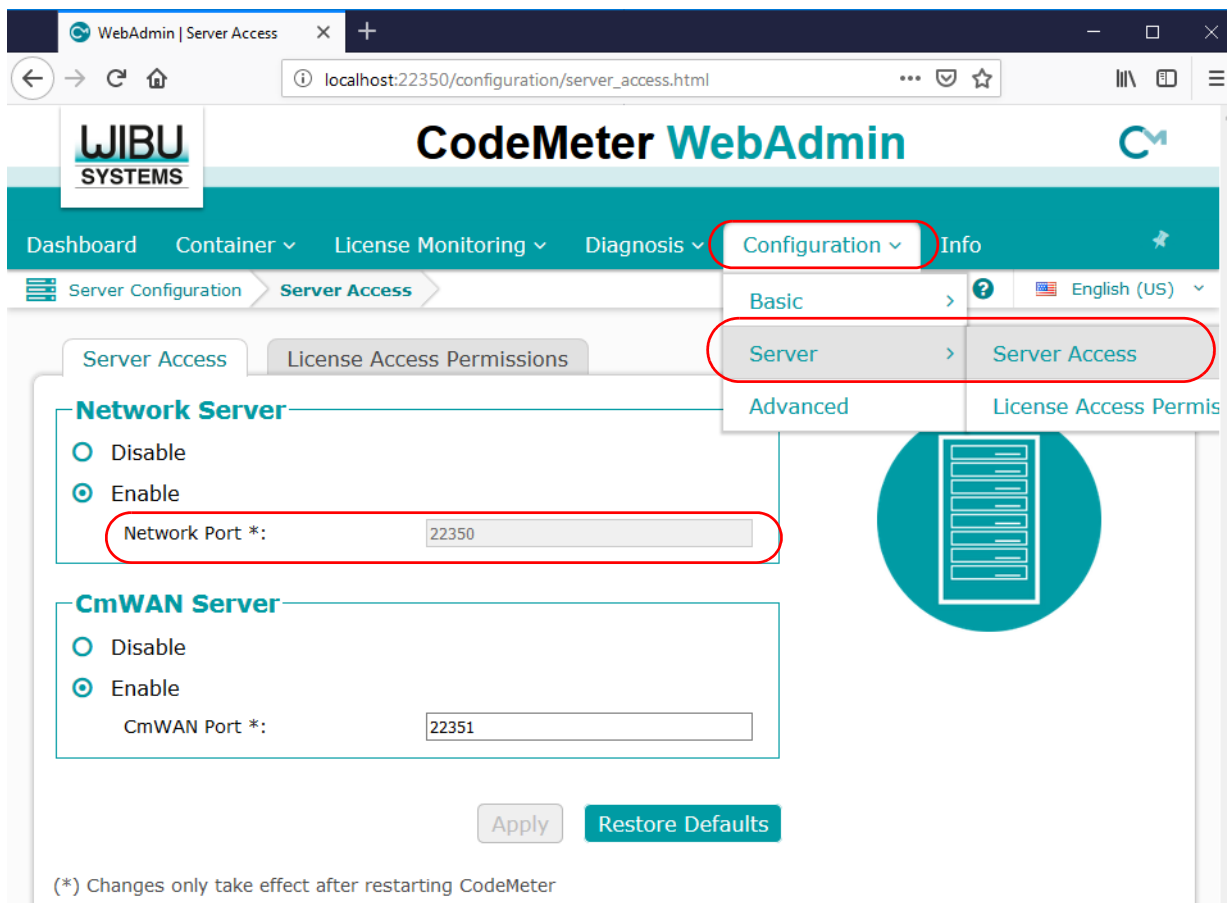
The **CodeMeter License Server** uses a specific IP port (defaulted on 22350) to communicate with your computer and the network. This network port is registered at **IANA** (Internet Assigned Numbers Authority) and is uniquely assigned for CodeMeter® communication.

Please make sure that your firewall is not blocking this port.

Enable the used **IP port 22350** and make sure it is accessible by CodeMeter®, *i.e.* share the communication for this IP port.

The IP port used for communication can be changed by the **CodeMeter WebAdmin** panel.

Click on the **Configuration > Server > Server access** menu.



Change the **Network Port**: field to the number of the port that you want the CodeMeter to communicate over, and then press **Apply**.

**Important:** For the change to take affect, you need to stop and then restart the **CodeMeter Runtime Server** service. See [11.1 Stopping & Starting the CodeMeter Runtime Server on page 80](#).

## 11.2.2 Port Address - WebAdmin 5

The **CodeMeter License Server** uses a specific IP port (defaulted on 22350) to communicate with your computer and the network. This network port is registered at **IANA** (Internet Assigned Numbers Authority) and is uniquely assigned for CodeMeter® communication.

Please make sure that your firewall is not blocking this port.

Enable the used IP port 22350 and make sure it is accessible by CodeMeter®, *i.e.* share the communication for this IP port.

The IP port used for communication can be changed by the **CodeMeter WebAdmin** panel.

Click on the **Configuration >Server** tab.



The screenshot shows the CodeMeter WebAdmin interface. The top navigation bar includes 'Home', 'Content', 'Server', 'Configuration' (highlighted with a red circle), 'Diagnosis', 'Info', and 'Help'. Below this, a secondary bar shows 'Network', 'Server' (highlighted with a red circle), 'Proxy', 'Access Control', 'Certified Time', 'WebAdmin', 'Backup', and 'Borrowing'. The main content area is titled 'Server' and contains the following fields:

- Bind Address: All (Default)
- Run Network Server: ☒
- Network Port \*: 22350 (highlighted with a red circle)
- Run CmWAN Server: ☐
- CmWAN Port \*: 22351

At the bottom of the form are 'Apply' and 'Default' buttons. A note at the bottom states: '(\*) Changes only take effect after restarting CodeMeter'.

Change the **Network Port**: field to the number of the port that you want the CodeMeter to communicate over, and then press **Apply**.

**Important:** For the change to take affect, you need to stop and then restart the **CodeMeter Runtime Server** service. See [11.1 Stopping & Starting the CodeMeter Runtime Server on page 80](#).

## 11.3 Certifying CodeMeters

Updating the **Certified Time** in a **CodeMeter** must be done at least every two month over the Internet and Certifying needs communication between the **CodeMeter** and a **Certified Wibu Time Server**.

So for Certification to occur, a computer that can access the **CodeMeter** must also **have access to the Internet at least every two months** so it can run the Certification.

Certifying a CodeMeter can be done

- (a) manually from inside **12d Model** itself

See [5.1 Certifying CodeMeters from 12d Model on page 30](#)

- (b) automatically by **12d Model**

See [5.2 Automatically Certifying CodeMeters from 12d Model on page 32](#)

- (c) outside of **12d Model** when the CodeMeter is on the computer you are using outside

Using the **CodeMeter Control Centre** - see [5.3 Certifying CodeMeters Using Control Center on page 33](#).

or

- (d) outside **12d Model** when the CodeMeter is **NOT** on the computer your are using

It is possible to certify CodeMeters that are on other computers but this is usually only needed by Administrators. See [11.3.1 Certifying CodeMeters Using WebAdmin on page 89](#)

### Important Note

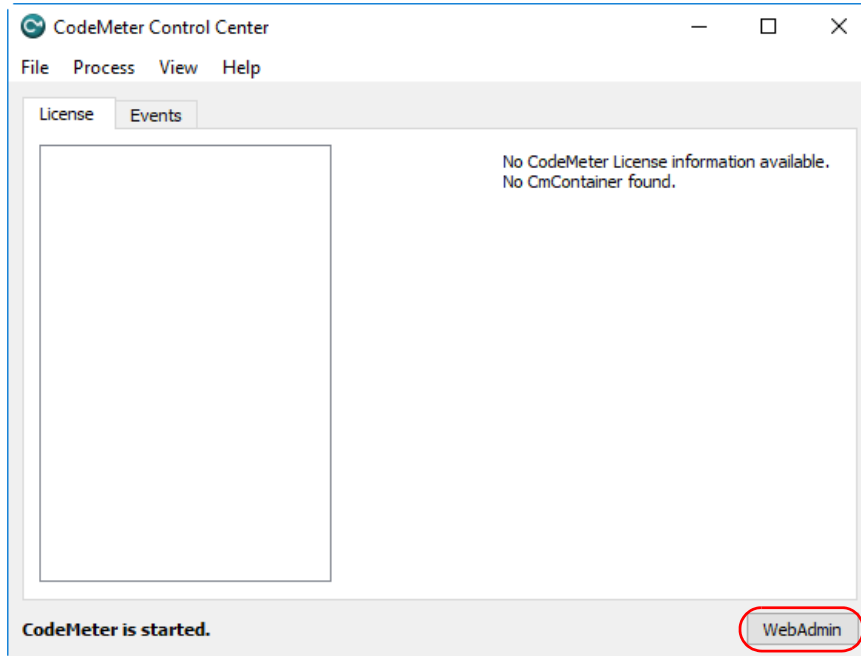
To display and update the **Certified Time** in the **CodeMeter**, you need access over the Internet to a **CodeMeter Time Server** (see [11.3.2 Time Servers for Certified Time on page 95](#)) and this Internet communication must be allowed to be done through an **IP port** (see [10 Network CodeMeters on page 51](#)).

Please contact your **12d Model Reseller** if you are having problems certifying your **CodeMeter**.



### 11.3.1 Certifying CodeMeters Using WebAdmin

If the **CodeMeter** is **NOT** attached to your current computer you need to use the **CodeMeter WebAdmin** panel which is brought up by clicking on the **WebAdmin** button on the **CodeMeter Control Center**.



For **CodeMeter WebAdmin 6**, see [11.3.1.1 Certifying CodeMeters Using WebAdmin 6 on page 90](#)

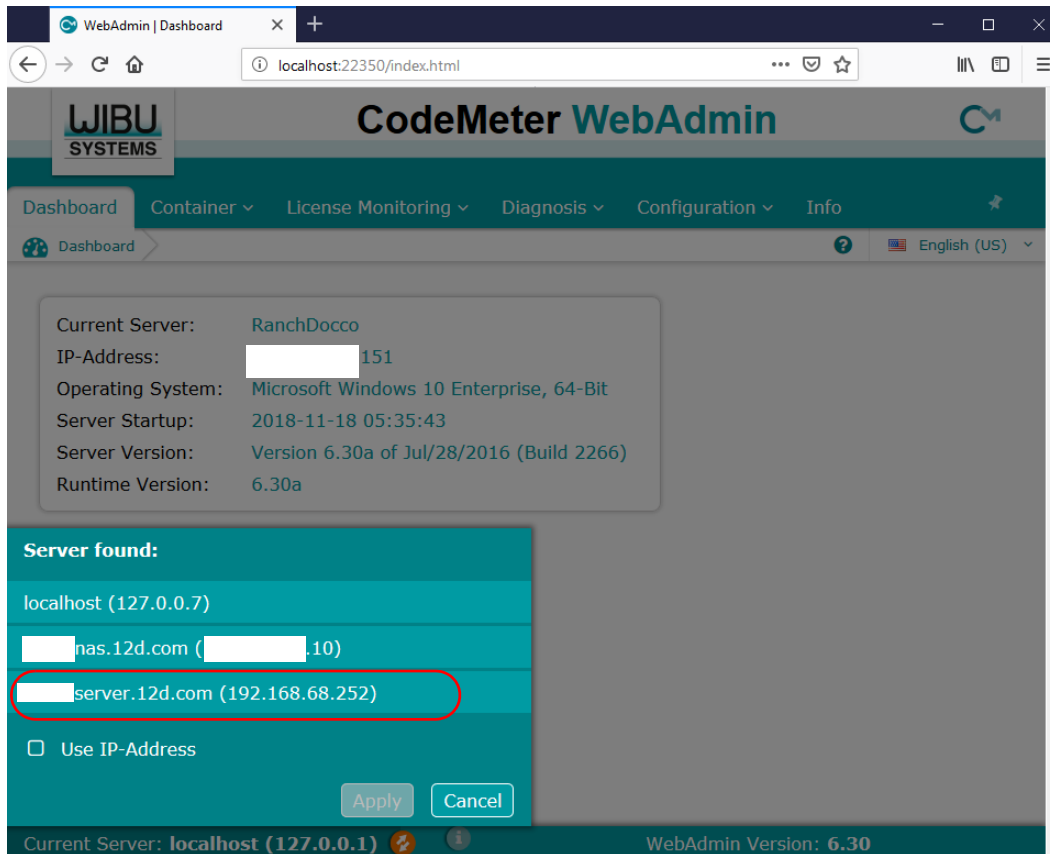
For **CodeMeter WebAdmin 5**, see [11.3.1.2 Certifying CodeMeters Using WebAdmin 5 on page 94](#).

### 11.3.1.1 Certifying CodeMeters Using WebAdmin 6

After getting up **CodeMeter WebAdmin** panel up, on the **Dashboard** you need to set the **Current Server** to the server that the CodeMeter is on.

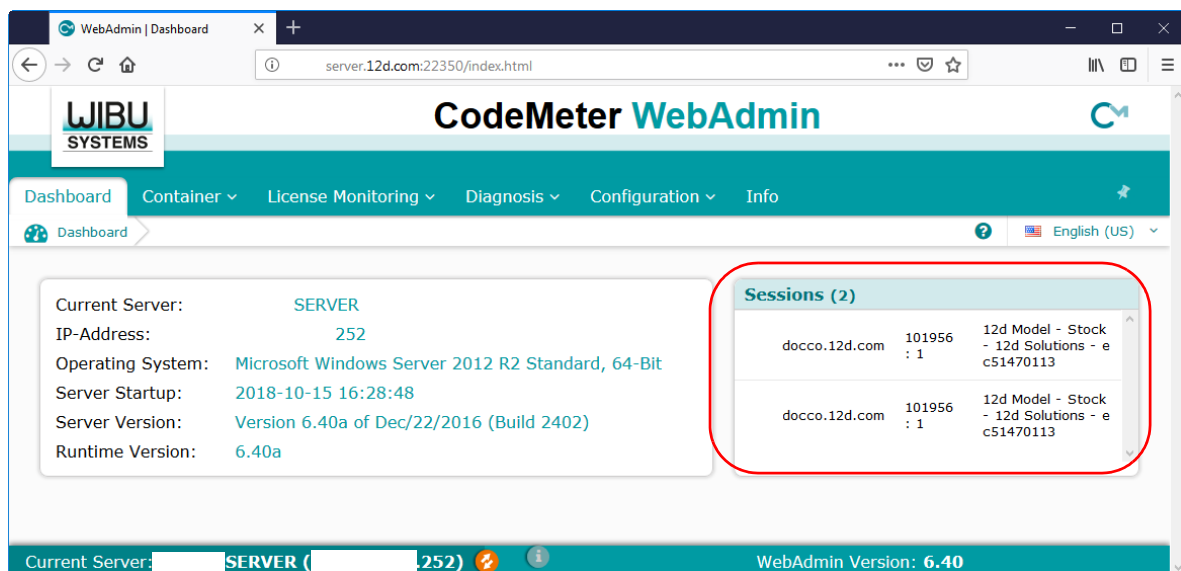
To get a list of servers, click on the Current Server: field at the bottom of the Dashboard and you will get a list of the servers found.





If there is more than one **CodeMeter** on that computer/server, select the one that you want to examine and click on **Apply**.

The information about the selected Server will be displayed, including any CodeMeters that are found on the server and the current sessions on them.



If there is more than one **CodeMeter (CmContainer)** on that computer/server, select the one that you want by Walking right on the **Container** menu.

**CodeMeter WebAdmin**

Dashboard Container License Monitoring Diagnosis Configuration Info

All Container > <no name> 2-1387203  
 <no name> 2-2310233  
 <no name> 2-2310242  
 <no name> 3-4025920

Current Server: SE  
 IP-Address: 68.252  
 Operating System: Microsoft Windows Server 2012 R2 Standard, 64-Bit  
 Server Startup: 2018-10-15 16:28:48  
 Server Version: Version 6.40a of Dec/22/2016 (Build 2402)  
 Runtime Version: 6.40a

**Sessions (2)**

docco.12d.com	101956 : 1	12d M - 12d c5147
docco.12d.com	101956 : 1	12d M - 12d c5147

Information about the selected CodeMeter is then displayed.

Click on the **CmContainer Info** button to expand the information displayed.

**CodeMeter WebAdmin**

Dashboard Container License Monitoring Diagnosis Configuration Info

All Container > <no name> (2-2310233)

<no name> 2-2310233 CmStick 2.04

▲ Licenses ▼ CmContainer Info ▼ Backup & Restore

▲ 100003 Bundling Articles

Product Code	Name	Unit Counter	Valid Until	License Quantity	Feature Map
1	SecuriKey Lite	n/a	n/a	1	0x1

▲ 101956 12d.com

Product Code	Name	Unit Counter	Valid Until	License Quantity	Feature Map
1	12d Model - Stock - 12d Solutions - ec51470113	n/a	n/a	5	n/a
1	12d Model - Stock - 12d Solutions - ec51470114	n/a	n/a	25	n/a

Current Server: SERVER (252) WebAdmin Version: 6.40

The current **Certified time** for that **CodeMeter** will be displayed.

The **Certified time** for that **CodeMeter** can be updated to the current date by clicking on the **Update** button.

The screenshot shows the CodeMeter WebAdmin interface. The 'CmContainer Info' tab is active, displaying a table with the following data:

<no name> 2-2310233 CmStick 2.04	
Name	<no name>
Serial Number	2-2310233
CmContainer Type	CmStick 2.04
First Device	I: (No Flash)
Status	Enabled
System Time (PC)	2018-12-23 16:22:51
System Time (CmContainer)	2018-12-23 16:22:48
<b>Certified Time (CmContainer)</b>	<b>2018-12-05 14:55:29</b>
Free Memory	92 % (363.656 Bytes)

A callout bubble points to a circular refresh icon in the bottom right corner of the table, with the text "click to update the Certified time".

If you have permission to do so, the **Certified time** for that **CodeMeter** can be updated to the current date by clicking on the **Update** button.

Please contact your **12d Model Reseller** if you are having problems certifying your **CodeMeter**.

### Important Note

To display and update the **Certified Time** in the **CodeMeter**, you need access over the Internet to a **CodeMeter Time Server** (see [11.3.2 Time Servers for Certified Time on page 95](#)). This Internet communication is through a set IP port (see [10 Network CodeMeters on page 51](#)).

### 11.3.1.2 Certifying CodeMeters Using WebAdmin 5

After getting up **CodeMeter WebAdmin** panel up, on the **Home** tab set the **Host Name:** field to the name of the computer or server that the **CodeMeter** to be certified is on, and then go to the **Content > CmContainer** tab.

**CodeMeter WebAdmin**

Home **Content** Server Configuration Diagnosis Info Help

**CmContainer** Licenses | User Data | Backup/Restore

**CmContainer:** 2-2310278

**Name:** <no name>

**CmContainer Type:** CmStick 2.04

**First Device:** No drive assigned (HID)

**Status:**

- ☐ Disabled
- ☐ Enabled until Unplugged
- ☒ Enabled

**System Time (PC):** 2015-09-03 17:40:47

**System Time (CmContainer):** 2015-09-03 17:40:47

**Certified Time (CmContainer):** 2015-09-03 17:13:38

**Free Memory:** 93 % (367.432 Bytes)

**Update** **Defragment**

If there is more than one **CodeMeter (CmContainer)** on that computer/server, select the one that you want to examine in the **CmContainer:** field.

The **Certified time** for that **CodeMeter** can be updated to the current date by clicking on the **Update** button.

Please contact your **12d Model Reseller** if you are having problems certifying your **CodeMeter**.

#### Important Note

To display and update the **Certified Time** in the **CodeMeter**, you need access over the Internet to a **CodeMeter Time Server** (see [11.3.2 Time Servers for Certified Time on page 95](#)). This Internet communication is through a set IP port (see [10 Network CodeMeters on page 51](#)).

## 11.3.2 Time Servers for Certified Time

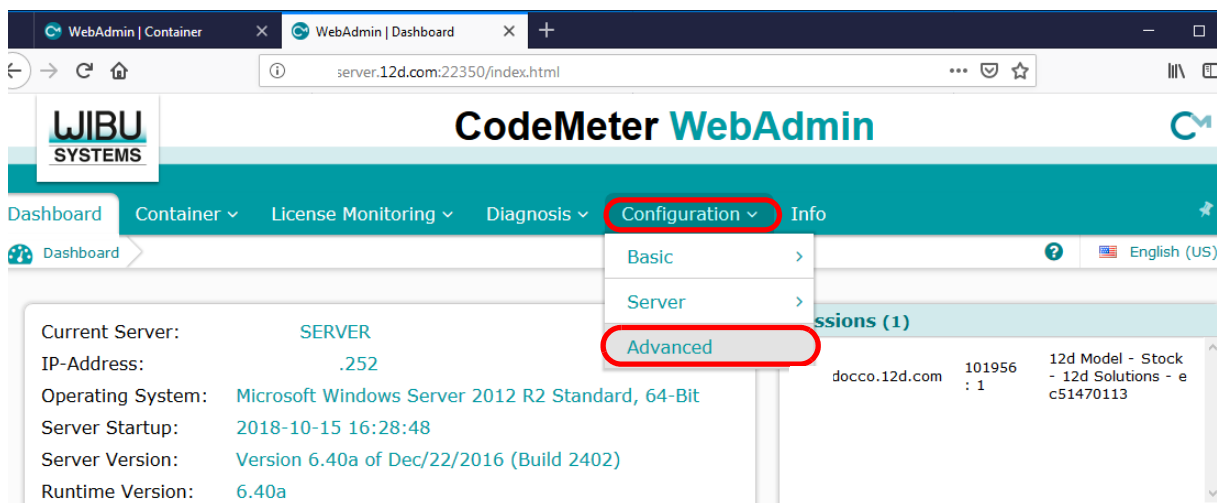
When you certify a **CodeMeter** it searches the internet for a **CodeMeter Time Server** to update the **Certified Time** in the CodeMeter.

For **CodeMeter WebAdmin 6**, see [11.3.2.1 Time Servers - WebAdmin 6 on page 95](#)

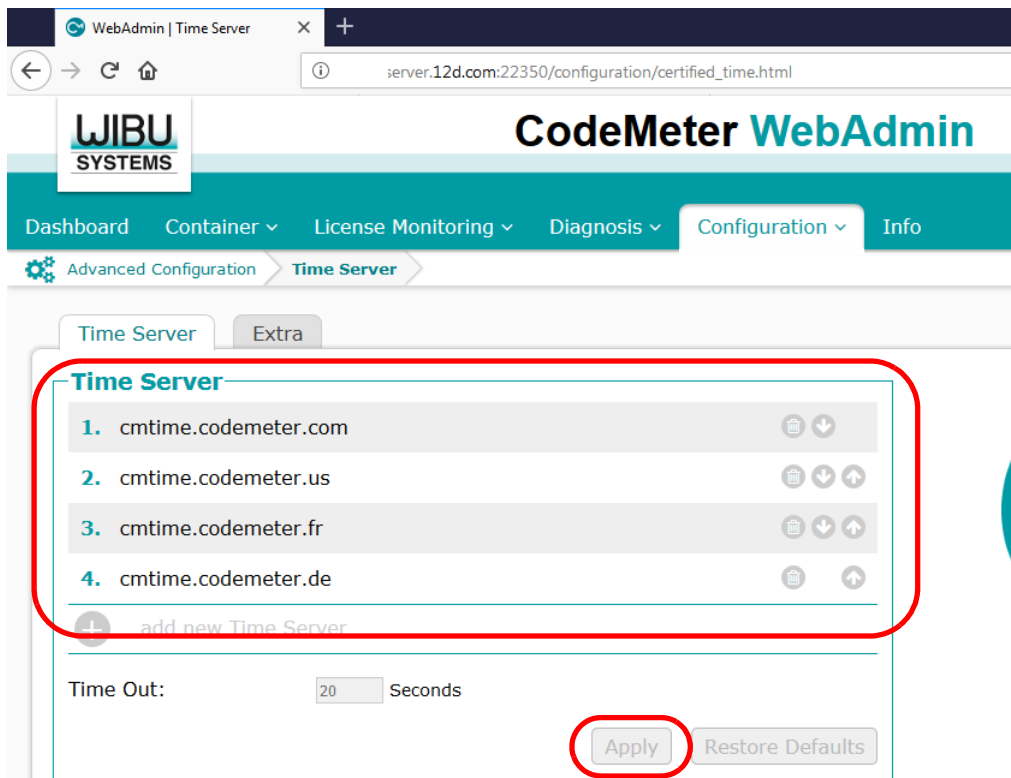
For **CodeMeter WebAdmin 5**, see [11.3.2.2 Time Servers - WebAdmin 5 on page 96](#).

### 11.3.2.1 Time Servers - WebAdmin 6

For a particular **CodeMeter** on a Server, the Internet or IP addresses of the **CodeMeter Time Servers** that are searched to set the **Certified Time** are given in the **Configuration > Certified Time** tab of the **CodeMeter WebAdmin** panel.



The list of **Time Servers** used for this CodeMeter are then displayed.



The Time Servers list is searched in order from the top to the bottom.

Servers in the list are added or removed using the **add** or **remove** buttons, and a highlighted entry in the list is moved up or down with the **up** and **down** buttons.

Clicking **Apply** saves these entries in the Windows Registry of the Server that the CodeMeter is on.

### 11.3.2.2 Time Servers - WebAdmin 5

For a particular **CodeMeter** on a Server, the Internet or IP addresses of the CodeMeter Time Servers that are searched to set the **Certified Time** are given in the **Configuration > Certified Time** tab of the **CodeMeter WebAdmin** panel.

The Time Servers to search are given in the list labelled **Time Server:** and the list is searched in order from the top to the bottom.

The Timer Servers can be specified by either an Internet address or an IP address.

Servers in the list are added or removed using the **add** or **remove** buttons, and a highlighted entry in the list is moved up or down with the **up** and **down** buttons.

Clicking **Apply** saves these entries in the Windows Registry of the Server that the CodeMeter is on.



## 11.4 Monitoring and Cancelling Licenses

Clicking on the **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about **12d Model** licenses for **any** CodeMeter (Network or Standalone) that is visible on the computer network.

For instructions on finding information about **CodeMeters** on a **particular Network Server**, see

[11.4.1 Getting Info on CodeMeters on a Particular Server - WebAdmin 6 on page 98](#)

[11.4.3 Getting Info on CodeMeters on a Particular Server - WebAdmin 5 on page 105.](#)

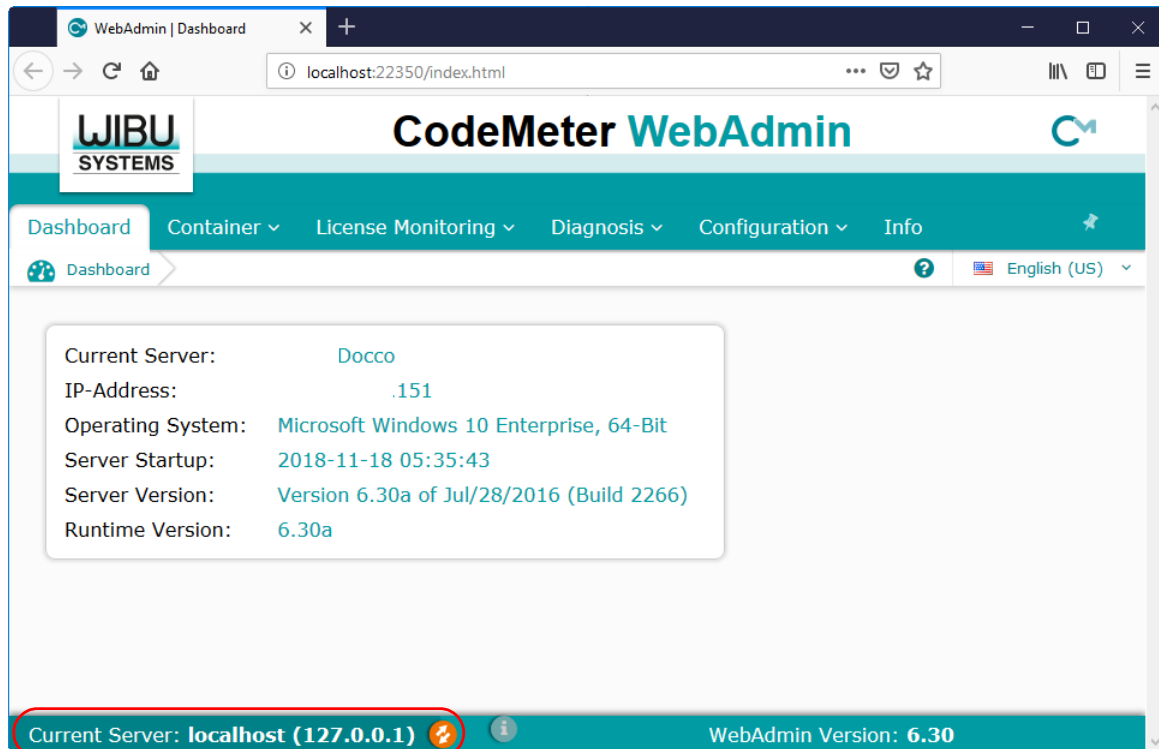
### 11.4.1 Getting Info on CodeMeters on a Particular Server - WebAdmin 6

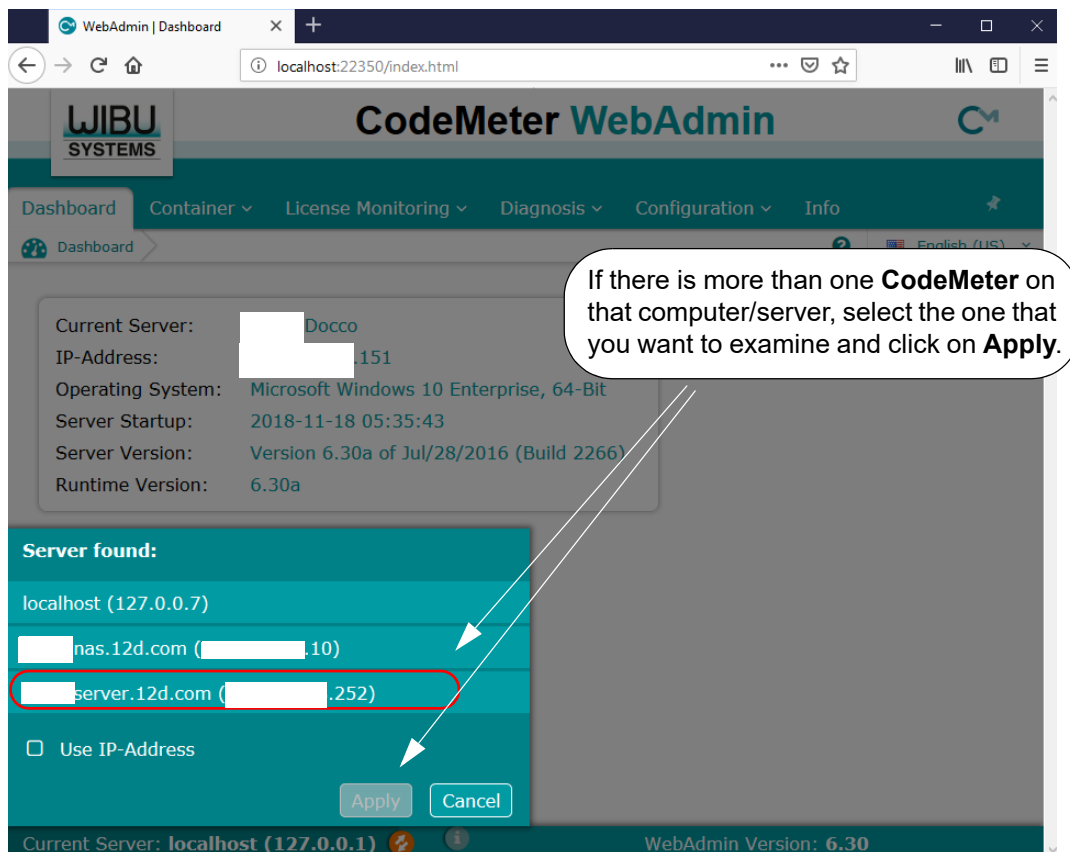
Clicking on the **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about **12d Model** licenses for **any** CodeMeter (Network or Standalone) that is visible on the computer network.

The panel comes up with the **Dashboard** tab displaying information about one of the CodeMeters on **this** computer.

To get information about CodeMeters on another Server, you need to set the **Current Server** to the server that you wish to exam **CodeMeters** on.

To get a list of servers, click on the Current Server: field at the bottom of the Dashboard:



**Important Note:**

It is possible to have different versions of **WebAdmin** installed on different Servers.

So depending on which Server you are looking at, you may now need to swap between the notes for **WebAdmin 6** and **WebAdmin 5**.


For instructions on Monitoring and Cancelling Licenses on this **Server**, see

[11.4.2 Monitoring and Cancelling Licenses - WebAdmin 6 on page 100](#)

[11.4.4 Monitoring and Cancelling Licenses - WebAdmin 5 on page 107.](#)

## 11.4.2 Monitoring and Cancelling Licenses - WebAdmin 6

The information about a selected Server will be displayed, including any CodeMeters that are found on the server and the current sessions on them.



The screenshot shows the CodeMeter WebAdmin interface. The left sidebar contains navigation links: Dashboard, Container, License Monitoring, Diagnosis, Configuration, and Info. The main content area is divided into two sections. The left section, titled 'Current Server:', displays the following information: SERVER, IP-Address: .252, Operating System: Microsoft Windows Server 2012 R2 Standard, 64-Bit, Server Startup: 2018-10-15 16:28:48, Server Version: Version 6.40a of Dec/22/2016 (Build 2402), and Runtime Version: 6.40a. The right section, titled 'Sessions (2)', is highlighted with a red rectangle and contains a table with two rows of session data.

Sessions (2)		
docco.12d.com	101956 : 1	12d Model - Stock - 12d Solutions - e c51470113
docco.12d.com	101956 : 1	12d Model - Stock - 12d Solutions - e c51470113

To find out information about all the **CodeMeters (CmContainer)** on that computer/server, select the **Container >All Containers** option, and expand the **12d Model product code 101956** for each CodeMeter to show any **virtual 12d dongles** in a CodeMeter or any **standalone** CodeMeters.

The example below shows a Server with three CodeMeters attached to it: one with a single virtual 12d dongle, one with two virtual 12d dongles and one which is a standalone CodeMeter.

The screenshot displays the WebAdmin interface for WIBU SYSTEMS, showing a list of containers and their associated CodeMeters. The interface includes a navigation bar with tabs: Dashboard, Container, License Monitoring, Diagnosis, Configuration, and Info. The 'Container' tab is selected, showing a list of containers with their IDs and names.

Three containers are shown, each with a CodeMeter attached. The containers are:

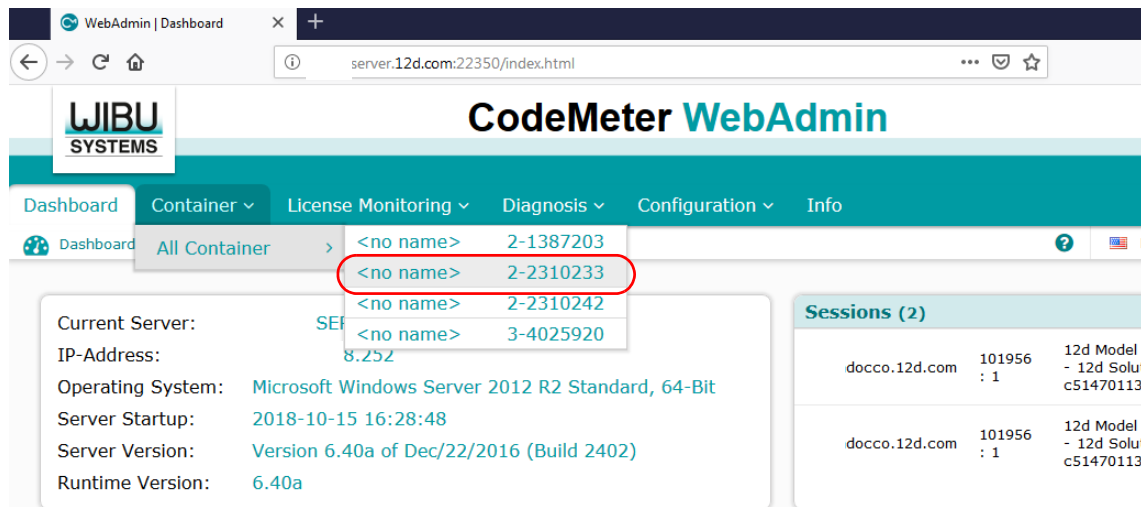
- Container 1 (ID: 2-2310233):** This container has two virtual 12d dongles. The CodeMeter numbers are 100003 and 101956. The CodeMeter is labeled '12d Model - Stock - 12d Solutions - ec51470113' and '12d Model - Stock - 12d Solutions - ec51470114'.
- Container 2 (ID: 2-2310242):** This container has one virtual 12d dongle. The CodeMeter number is 100003. The CodeMeter is labeled '12d Model - 12D Solutions - NSW - ec51470101'.
- Container 3 (ID: 3-4025920):** This container is a standalone CodeMeter. The CodeMeter number is 101956. The CodeMeter is labeled '12d Model - 12d Solutions - 5c2d470ac1'.

Annotations in the image point to the following details:

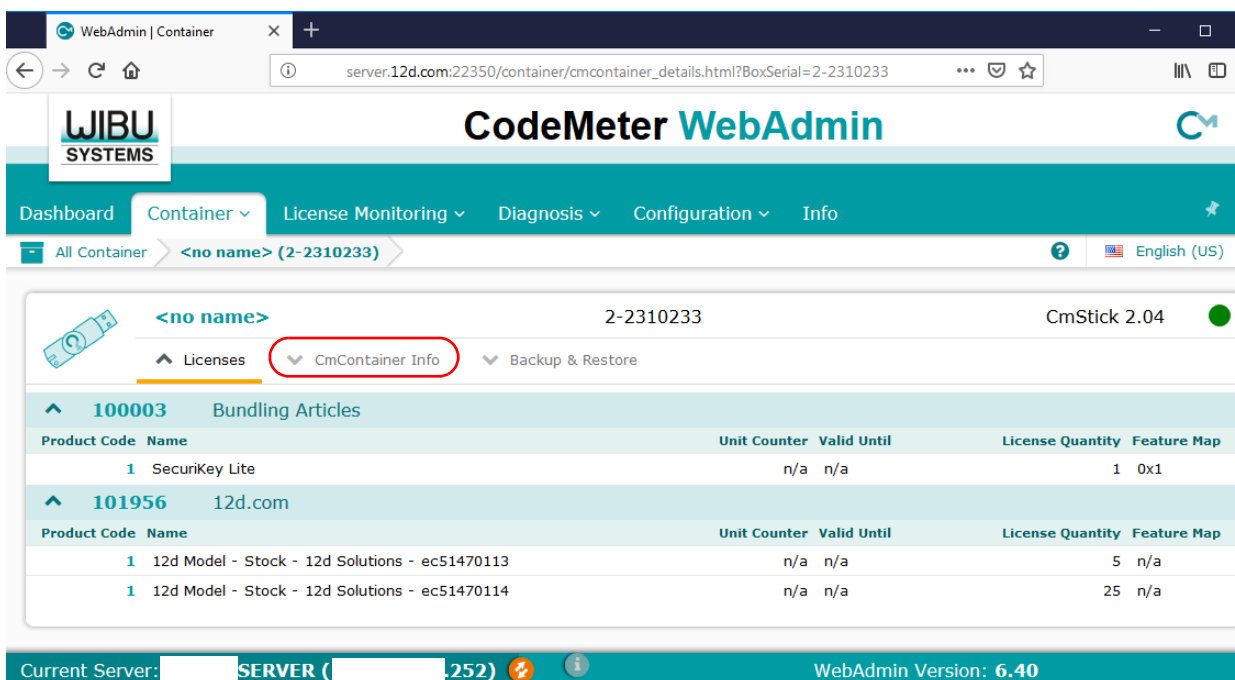
- 12d Model product code:** Points to the product code '100003' in the first container.
- two virtual 12d dongles in the one CodeMeter:** Points to the two entries for the first container.
- CodeMeter numbers:** Points to the CodeMeter numbers '100003' and '101956' in the first container.
- one 12d Model virtual dongle in a CodeMeter:** Points to the entry for the second container.
- one standalone 12d Model CodeMeter:** Points to the entry for the third container.

The bottom status bar shows 'Current Server: SERVER (252)' and 'WebAdmin Version: 6.40'.

If there is more than one **CodeMeter (CmContainer)** on the computer/server, information about just one of them can be obtained by walking right on the **Container >All Container** menu and selecting the required CodeMeter number.

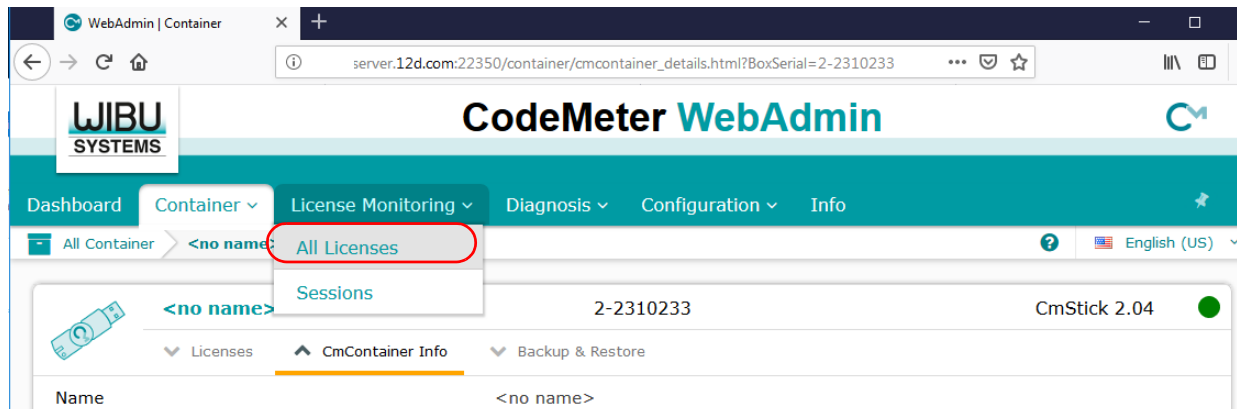


Information about the selected CodeMeter is then displayed. Expanding the **12d Model product code 101956** will show any **virtual 12d dongles** in a CodeMeter.

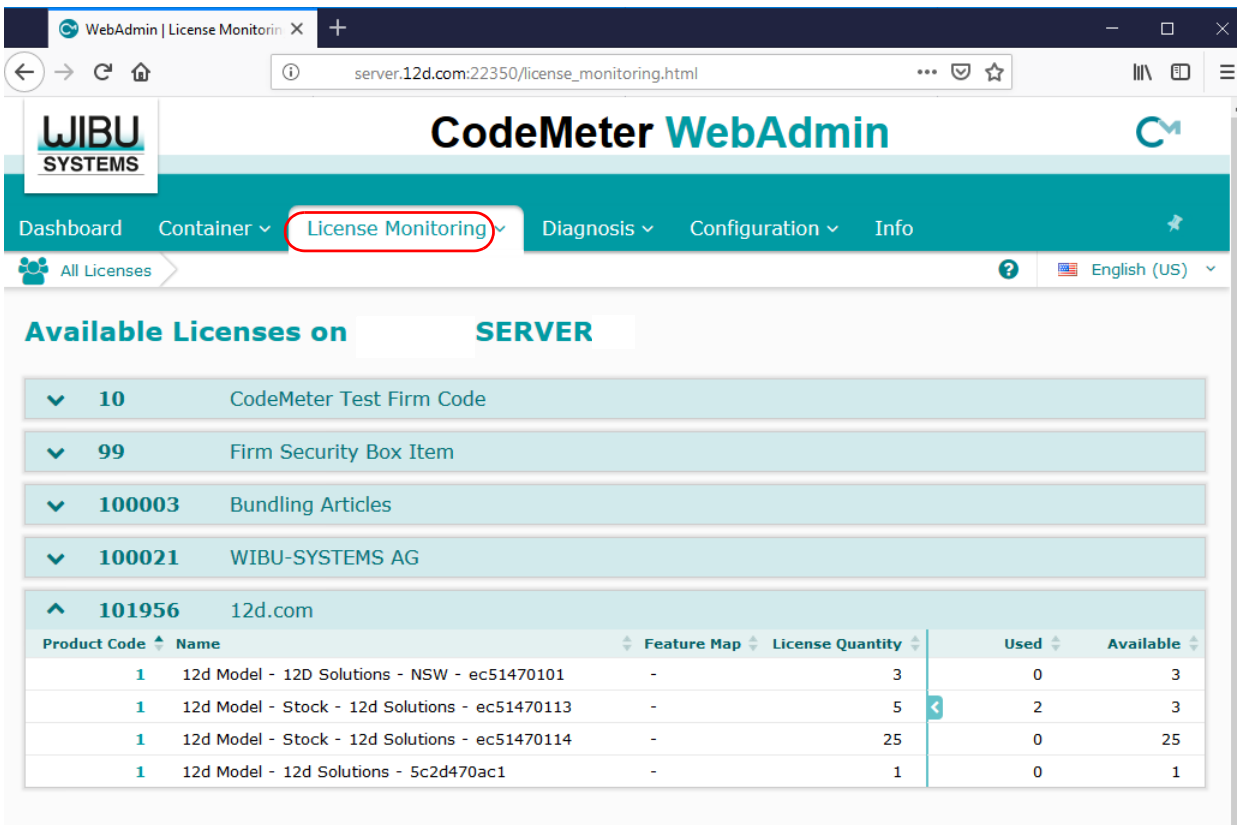


And as discussed in the Certifying section, clicking on the **CmContainer Info** button expands the information displayed for the **CodeMeter**.

To see information about the total number of licenses available for each **virtual 12d dongle**, and the number of licenses currently being used and how many are left to use, click on the **License Monitoring >All Licenses** menu.



Information about the selected CodeMeter is then displayed.



WebAdmin | License Monitoring

server.12d.com:22350/license\_monitoring.html

# CodeMeter WebAdmin

Dashboard Container License Monitoring Diagnosis Configuration Info

All Licenses English (US)

## Available Licenses on 'BUILD-SERVER'

10 CodeMeter Test Firm Code

one 12d Model virtual dongle in a CodeMeter

100003 two 12d Model virtual dongles in a CodeMeter

100021 WIBU-SYSTEMS AG

101956 12d.com

Product Code	Name	Feature Map	License Quantity	Used	Available
1	12d Model - 12d Solutions - NSW - ec51470101	-	3	0	3
1	12d Model - Stock - 12d Solutions - ec51470113	-	5	2	3
1	12d Model - Stock - 12d Solutions - ec51470114	-	25	0	25
1	12d Model - 12d Solutions - 5c2d470ac1	-	1	0	1

Information last updated on 2018-12-25 11:29:20

Clicking on the Product Code 1 for a CodeMeter showing some licenses are being used will (for example ec514470113), displays the user name of the user of each license (session).

If you have the required permission, the session can be **terminated** by selecting **Cancel** at the end of the session row and in the **Action** column.

WebAdmin | License Monitoring

server.12d.com:22350/license\_monitoring/license\_monitoring\_details.html?Bc

# CodeMeter WebAdmin

Dashboard Container License Monitoring Diagnosis Configuration Info

All Licenses <no name> (2-2310233) - Entry 101956:1 (-)

English (US)

## License Monitoring Details

user for the session

click to Cancel the session

CmContainer	Entry	Available	Total
<no name> (2-2310233)	101956:1 (-)	3	5

ID	Client (User)	Client Process ID	Application Information	Access Mode	First Access	Last Access	Expires	Action
213	.151 (candice)	0		User Limit	2018-12-25 08:40:24	2018-12-26 12:10:56		
220	.151 (candice)	0		User Limit	2018-12-25 08:39:53	2018-12-26 12:10:35		

Information last updated on 2018-12-26 12:11:17

Current Server: SERVER (252) WebAdmin Version: 6.40



### 11.4.3 Getting Info on CodeMeters on a Particular Server - WebAdmin 5

Clicking on the **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about **12d Model** licenses for **any** CodeMeter (Network or Standalone) that is visible on the computer network.

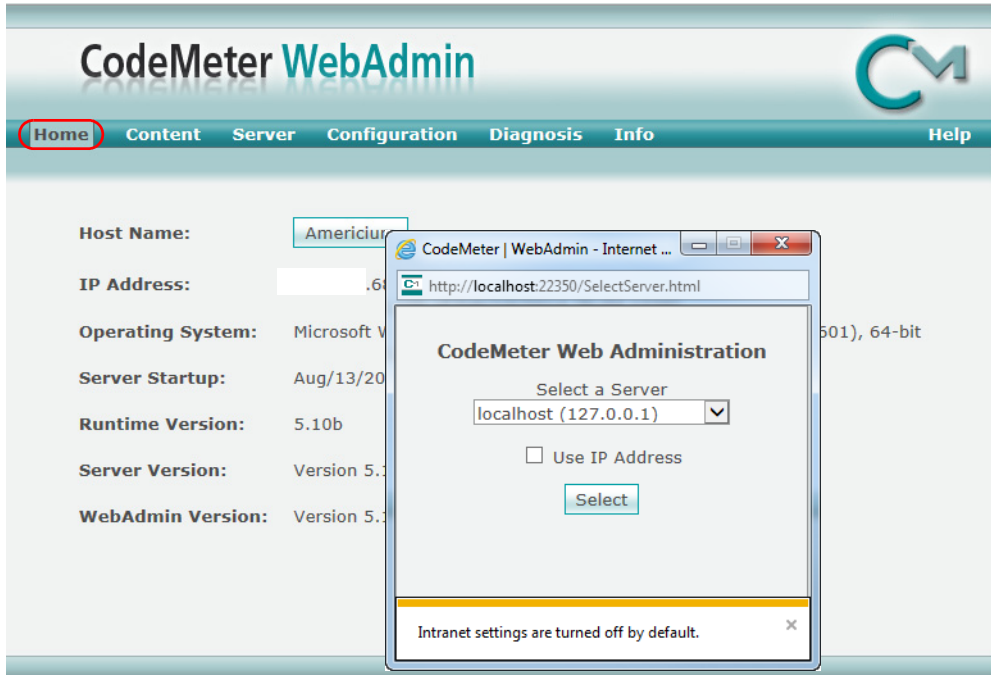
The panel comes up with the **Content > CmContainer** tab displaying information about one of the CodeMeters on **this** computer.

The screenshot shows the CodeMeter WebAdmin interface. The top navigation bar includes tabs: Home, Content (selected), Server, Configuration, Diagnosis, Info, and Help. Below the Content tab, there are sub-tabs: CmContainer (selected), Licenses, User Data, and Backup/Restore. The main content area displays information for a specific CmContainer:

- CmContainer:** 2-2310278 (dropdown menu)
- Name:** <no name> (text input)
- CmContainer Type:** CmStick 2.04
- First Device:** No drive assigned (HID)
- Status:**
  - ☒ Disabled
  - ☐ Enabled until Unplugged
  - ☐ Enabled
- System Time (PC):** 2015-08-14 17:24:11
- System Time (CmContainer):** 2015-08-14 17:24:10
- Certified Time (CmContainer):** 2015-08-14 15:36:01 (with an Update button)
- Free Memory:** 93 % (367.432 Bytes) (with a Defragment button)

CodeMeters on other computer can be examined by clicking on the **Home** tab and then clicking on the displayed **Host Name:** to bring up the panel to select a **Server** to check for CodeMeters.

A pop up list is automatically created of all the computers that are visible on the network and have CodeMeters on them.



Picking a Server/Computer from the list and then pressing **Select** will set the **Host Name**: to the selected computer and all the tabs on the **CodeMeter WebAdmin** panel will then show information about the CodeMeters on the selected computer.

**Important Note:**

It is possible to have different versions of **WebAdmin** installed on different Servers.

So depending on which Server you are looking at, you may now need to swap between the notes for **WebAdmin 6** and **WebAdmin 5**.

For instructions on Monitoring and Cancelling Licenses on this **Server**, see

[11.4.2 Monitoring and Cancelling Licenses - WebAdmin 6 on page 100](#)

[11.4.4 Monitoring and Cancelling Licenses - WebAdmin 5 on page 107.](#)

### 11.4.4 Monitoring and Cancelling Licenses - WebAdmin 5

The tab **Content >Licenses** will display information about any selected CodeMeter on the selected computer.

**CodeMeter WebAdmin**

Home **Content** Server Configuration Diagnosis Info Help

CmContainer: **Licenses** User Data | Backup/Restore

CmContainer: 2-2310233

100003   Bundling Articles					
Product Code	Name	Unit Counter	Expiration Time	Activation Time	License Quantity
1	SecuriKey Lite	n/a	n/a	n/a	1

101956   12d.com					
Product Code	Name	Unit Counter	Expiration Time	Activation Time	License Quantity
1	12d Model - Stock - 12d Solutions - ec51470113	n/a	n/a	n/a	5
1	12d Model - Stock - 12d Solutions - ec51470114	n/a	n/a	n/a	25

To see how many **12d Model** licenses are being used by each virtual **12d dongle** in all the CodeMeters on a particular Server, when that server has been selected on the **Home** tab, click on the **Server >User** tab.

**CodeMeter WebAdmin**

Home Content **Server** Configuration Diagnosis Info Help

Cluster | User

Available Network Licenses at 'BUILD-SERVER'

Product Code	Name	Feature Map	Licenses	Status						
				User Limit (Borrowed)	No User Limit	Exclusive	Shared	Free		
10   CodeMeter Test Firm Code										
13	Test Entry	-	1	0 (-)	0	0	0	1	<a href="#">Details</a>	
1608	CmDemo for C++ created this Product Item	-	1	0 (-)	0	0	0	1	<a href="#">Details</a>	
101956   12d.com										
1	12d Model - 12D Solutions - NSW - ec51470101	-	3					3	<a href="#">Details</a>	
1	12d Model - Stock - 12d Solutions - ec51470113	-	5	2 (-)	0	0	0	3	<a href="#">Details</a>	
1	12d Model - Stock - 12d Solutions - ec51470114	-	25					25	<a href="#">Details</a>	

Information last updated on Aug/14/2015 19:47:58

The **12d dongles** are displayed under the section titled **101956 | 12d.com**.

The table also displays how many **12d Model licenses** are on each **12d dongles**, and how many of those licenses are still **Free** to be used.

Details about each user on a particular **12d dongle** is displayed by clicking on the **Details** button at the end of the row for that virtual **12d dongle**.

**CodeMeter WebAdmin**

Home Content **Server** Configuration Diagnosis Info Help

Cluster | User

**License Details CmContainer 2-2310233**

Entry 101956 : 1 (-)

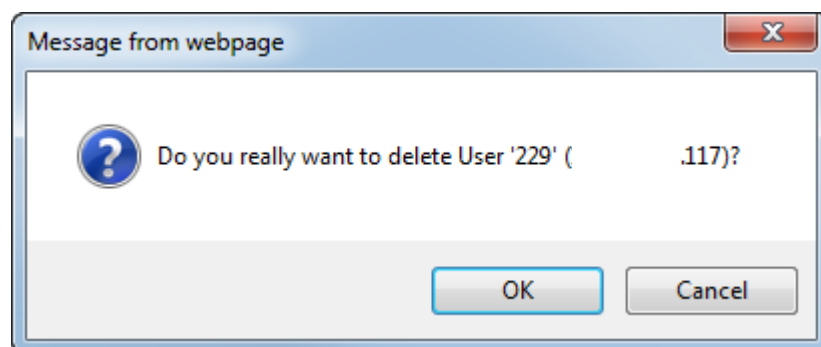
Free 3

Total 5

ID	Client (User)	Client Process ID	Application Information	Access Mode	First Access	Last Access	Expires	Action
229	.117 (T3600-1 \ alg)	0		User Limit	2015-08-14 19:41:48	2015-08-14 19:49:22		<a href="#">Cancel</a>
242	.117 (T3600-1 \ alg)	0		User Limit	2015-08-14 19:41:57	2015-08-14 19:48:15		<a href="#">Cancel</a>

Information last updated on Aug/14/2015 19:49:25

A particular user session of **12d Model** can be stopped by clicking on the **Cancel** button. A **Confirmation** panel will then be brought up.



If you click on **OK** and have permission to be able to stop people, the session will be terminated. If you do not have permission, you will get the message



## 11.5 Updating Licenses in Network CodeMeters

A **Network CodeMeter** can contain one or more **virtual 12d dongles** and each of these virtual dongles can have a different number of **12d Model** licenses.

Adding extra **12d dongles**, or modifying the number of licenses on each of the **12d dongles** can be done electronically without having to remove the Network CodeMeter from the computer.

Updating virtual **12d dongles** is usually one simple step but it may involve two steps.

### Step 1. Generating the CodeMeter Context File (.WibuCmRaC) - only if asked for

The *context* (.WibuCmRaC) file holds information about the current settings in the Network CodeMeter. **12d Solutions** usually knows these setting for your Network CodeMeter and this step is normally not required.

However sometimes you may be asked to generate the .WibuCmRaC file and email it to your local **12d Model** Distributor.

If you need to generate the **.WibuCmRaC** file, go to [11.5.1 Generating the Context File \(.WibuCmRaC\) on page 112](#).

### Step 2. Updating the Network CodeMeter with the .WibuCmRaU file

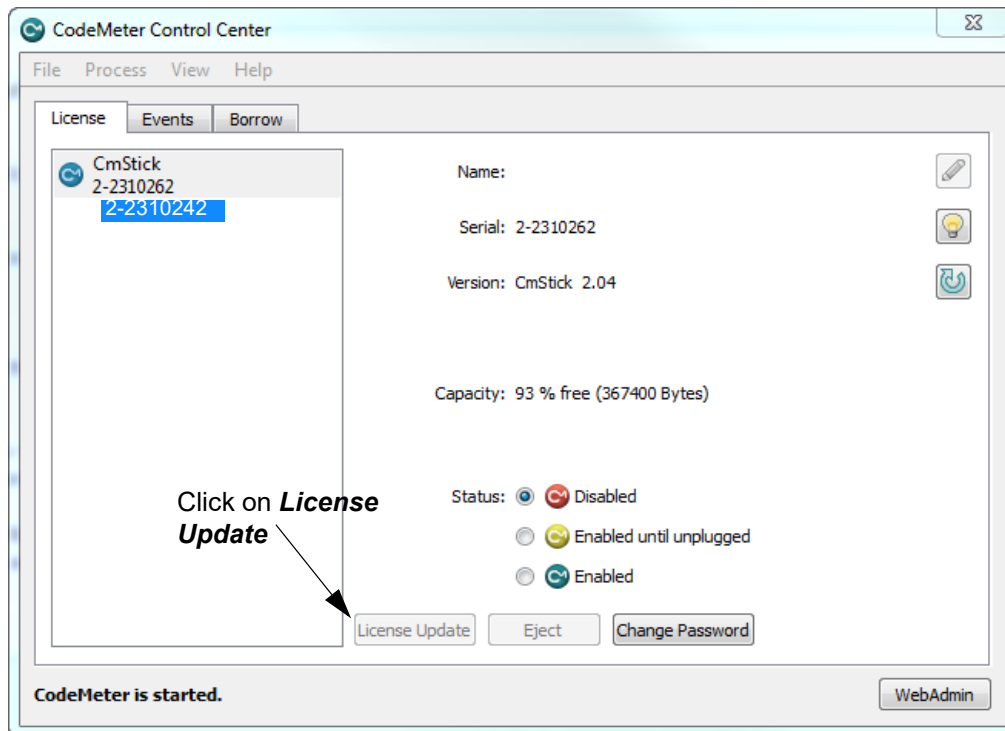
You will be emailed one or more special files (ending in **.WibuCmRaU**) which are used to update the information about the virtual **12d dongles** in the Network CodeMeter.

If you have a **WibuCmRaU** file, go to [11.5.1.1 Updating Using the .WibuCmRaU File on page 115](#).

## 11.5.1 Generating the Context File (.WibuCmRac)

The follow steps will generate a new context file for a Network CodeMeter using the *CodeMeter Control Center* panel.

The *CodeMeter Control Center* panel is accessed by clicking on the **CodeMeter** icon that was installed on your task bar.

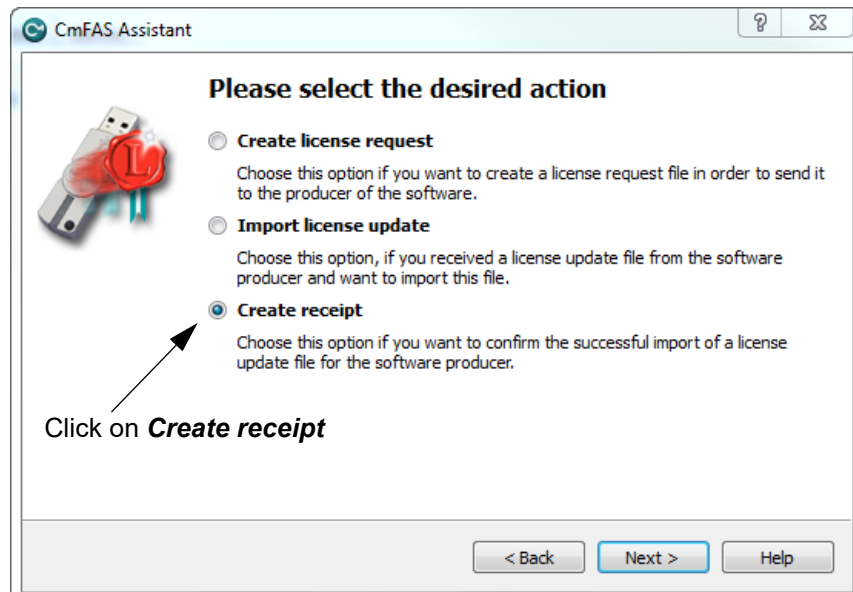


Click on **License Update** to bring up the **CmFAS Assistant** panel.

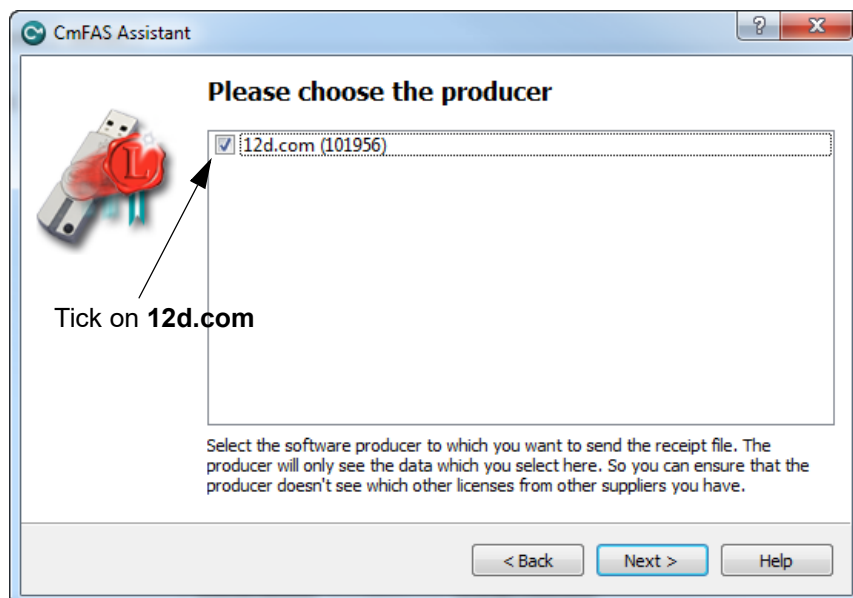


Select **Next**.

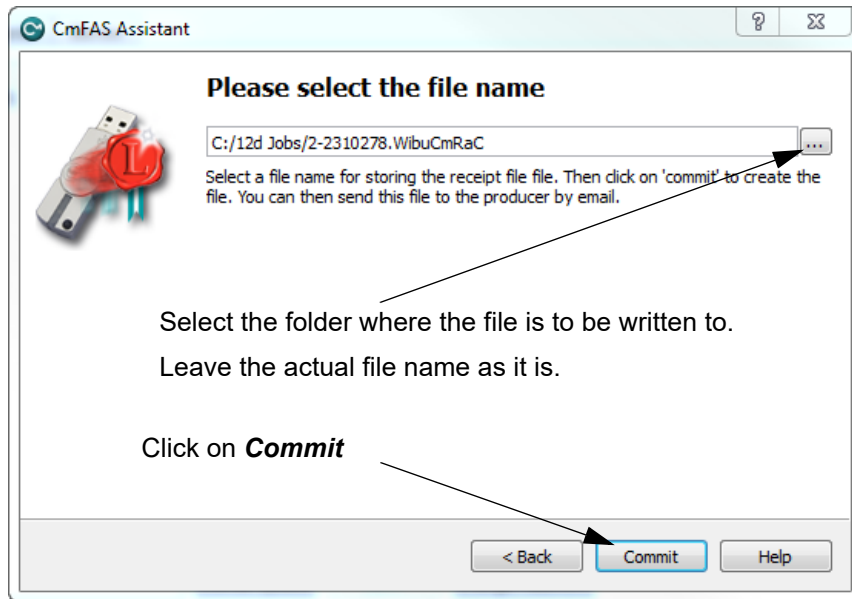




Tick on **Create receipt** and then select **Next**.



Tick on **12d.com** and then select **Next**.



Select the file to use to update the CodeMeter and then select **Commit**.

Email the **.WibuCmRaC** file to your **12d Model Reseller**.

Your **12d Model Reseller** will then be able to send you a **.WibuCmRaU** file to update your Network CodeMeter.

For information on how to use a **.WibuCmRaU** file to update the CodeMeter, see [11.5.1.1 Updating Using the .WibuCmRaU File on page 115](#).

### 11.5.1.1 Updating Using the .WibuCmRaU File

The number of virtual **12d dongles** and the number of **12d Model** licenses on them can be changed electronically without having to remove the CodeMeter from the computer.

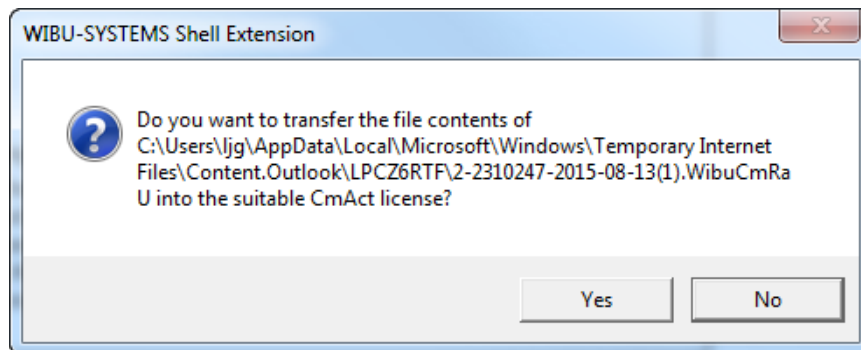
To update the CodeMeter, you will be sent a file starting with the CodeMeter number, then the date and finally ending in **.WibuCmRau**.

The steps below will show how to use the **.WibuCmRau** file to update the Network CodeMeter

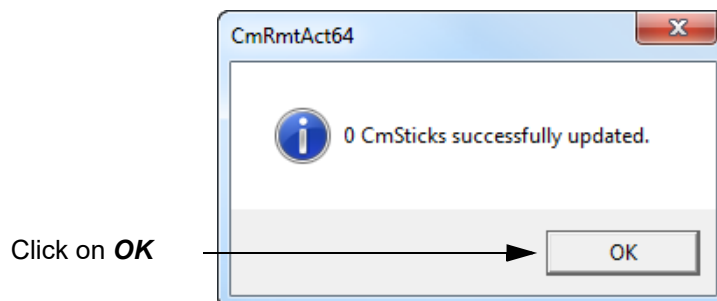
**You need to have System Administrator rights to update the Network CodeMeter.**

Before updating a Network CodeMeter dongle, run the **CodeMeter WebAdmin** software to check that no one is using the Network CodeMeter ([11.4 Monitoring and Cancelling Licenses on page 97](#)). The **CodeMeter WebAdmin** displays network dongle activity and it can also remove users from the network dongle.

Once all the users are off the Network CodeMeter, double click on the file **codemeter\_number\_date.WibuCmRau** and the following panel will appear:



Select **Yes** and a panel to say how many CodeMeters have been updated should appear.



The CodeMeter should now be updated. The **CodeMeter WebAdmin** can be used to check that the new number of licenses, or new number of 12d dongles, are now available.

**WARNING:** If there is **no** association for the **.WibuCmRau** file, double clicking on the **.WibuCmRau** file won't work. In that case go to [11.5.1.2 Manually Updating the Network CodeMeter on page 116](#).

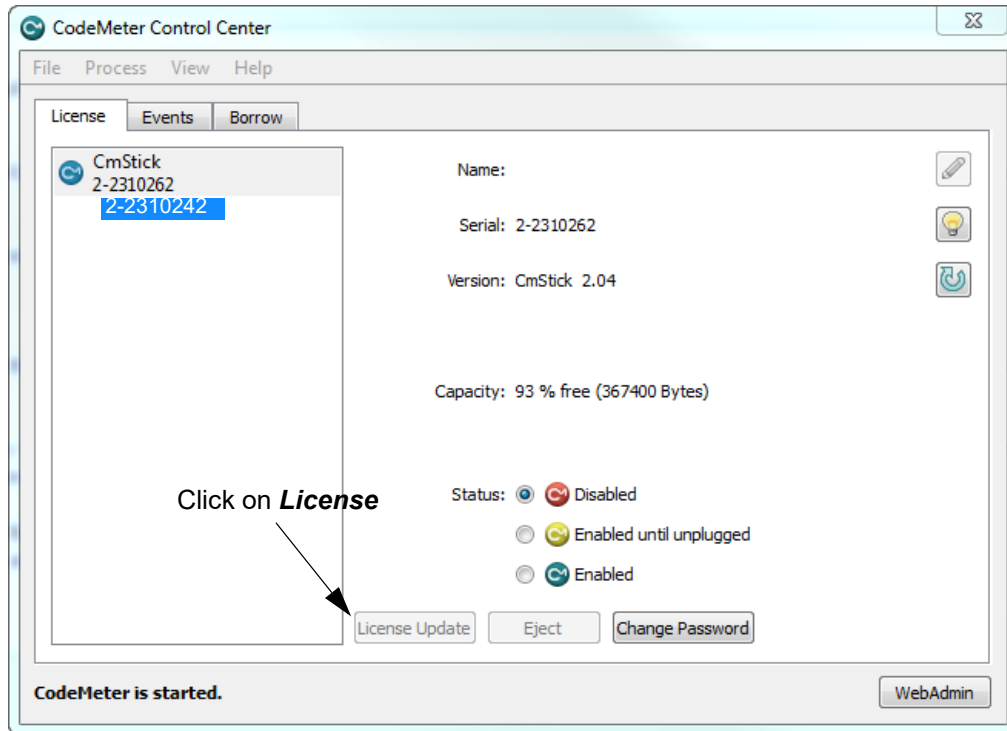
#### Nodes.4d:

If you've added a new **virtual 12d dongle** to your CodeMeter then a new **nodes.4d** file with that 12d dongle number in it will be needed. If all you did was change the number of licenses for an **existing 12d dongle** in the Network CodeMeter then a new **nodes.4d** file is not required.

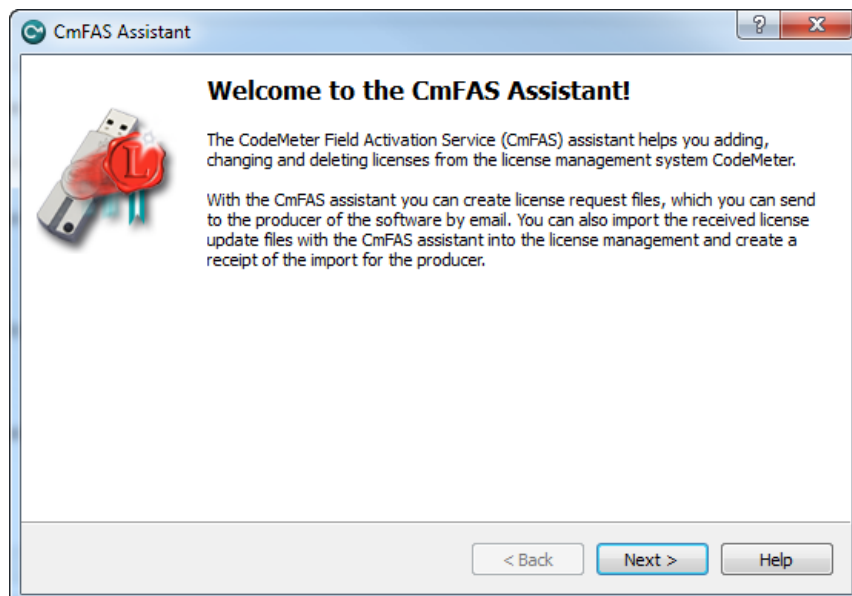
### 11.5.1.2 Manually Updating the Network CodeMeter

If there is **no association** with the **.WibuCmRau** file then double clicking on the **.WibuCmRau** file won't automatically run the CodeMeter update program. So instead, the update will have to be done manually using the *CodeMeter Control Center* panel.

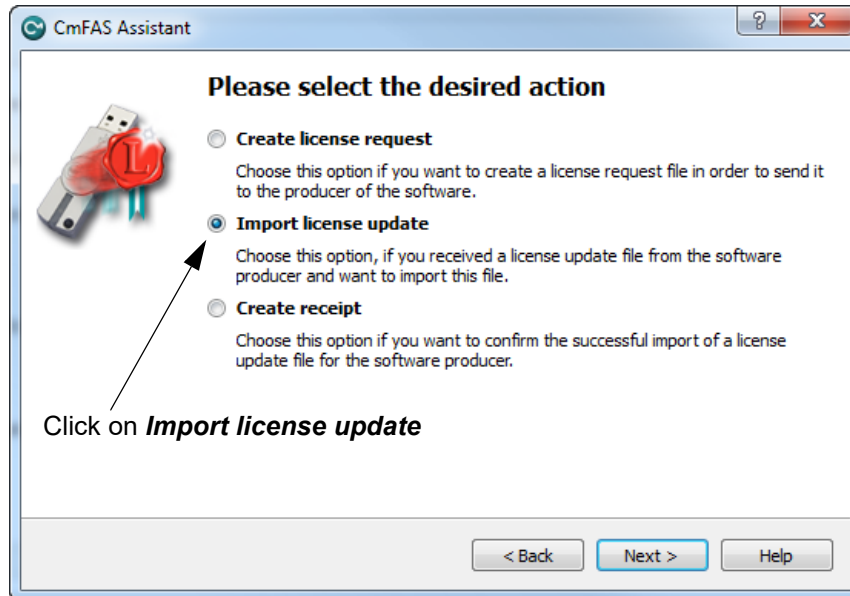
The *CodeMeter Control Center* panel is accessed by clicking on the **CodeMeter** icon that was installed on your task bar.



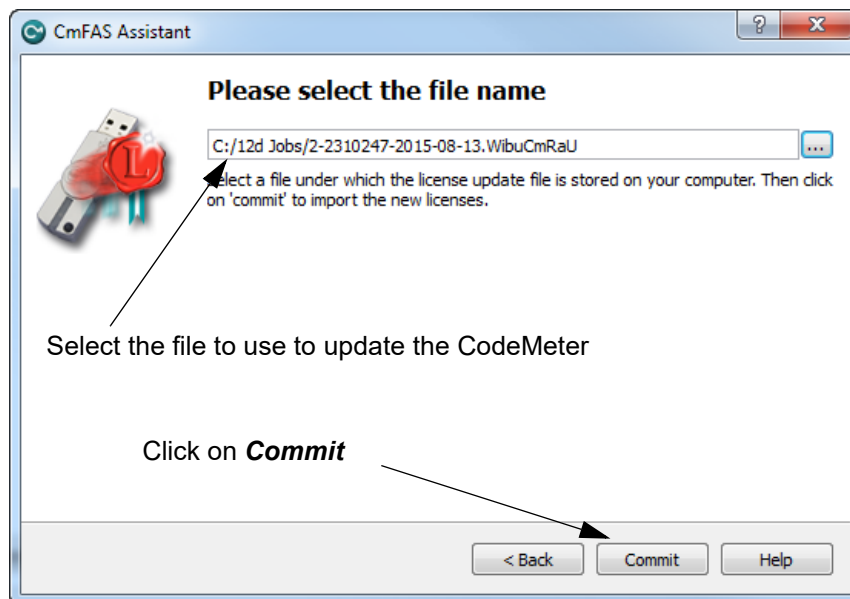
Click on **License Update** to bring up the **CmFAS Assistant** panel.



Select **Next**.



Tick on **Import license update** and then **Next**.



Select the file to use to update the CodeMeter and then select on **Commit**.

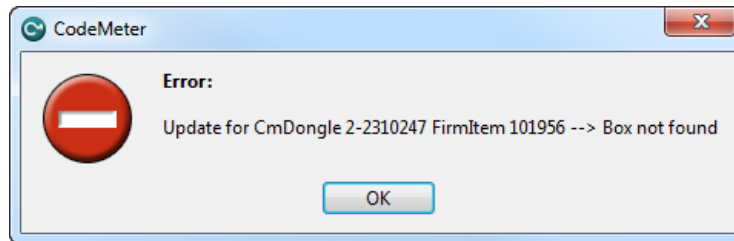
#### Nodes.4d:

If you've added a new **virtual 12d dongle** to your CodeMeter then a new **nodes.4d** file with that 12d dongle number in it will be needed. If all you did was change the number of licenses for an **existing 12d dongle** in the Network CodeMeter then a new **nodes.4d** file is not required.

**Note** - if the CodeMeter that the file applies to is not on the computer then an **Error** message will be brought up. See [11.5.2 Errors Updating the Network CodeMeter on page 118](#).

## 11.5.2 Errors Updating the Network CodeMeter

If there was a problem, instead of the dialogue stating that the CodeMeter has been updated, a CodeMeter error panel will appear. For example:



If you can't work out what your error was, email the error message to your **12d Model Reseller**.

Doing a *Print Screen* and saving the *png* or *bmp* is the best way to record details of the error and send the image to your **12d Model Reseller**.

## 11.6 Replacing an Existing Network CodeMeter

Before removing a Network CodeMeter, run the *CodeMeter WebAdmin* software to check that no one is using the Network CodeMeter dongle ([11.4 Monitoring and Cancelling Licenses on page 97](#)).

If there are no user on the Network CodeMeter, the existing Network CodeMeter can be removed from the computer and the new Network CodeMeter attached.

The new Network CodeMeter should now be ready to use.

**NOTE** - a new nodes file will be required for the new virtual **12d dongles** that are in the new Network CodeMeter.

## 11.7 End of the Notes on Network CodeMeters

This ends the general notes on the Network CodeMeter.

However information on Certifying Network CodeMeters is covered in [9 Errors Installing and Authorising on page 47](#).

If you need to install **12d Model** on a computer, go to the section [2 Installing 12d Model 15 Release Version on page 6](#).

The links for downloading documentation on **12d Model** are given in [6 Documentation on page 40](#).

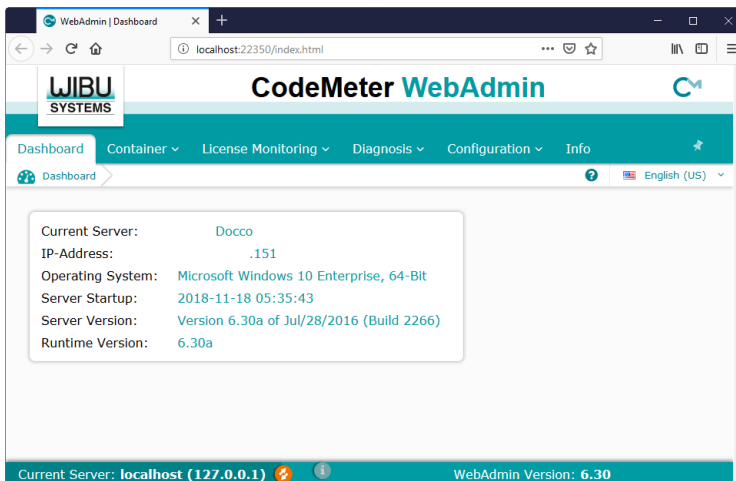
The links for downloading information, power points and videos on what is new in **12d Model 15** are given in [7 What's New in 12d Model 15 on page 45](#).

## 11.8 Which Version of WebAdmin?

Clicking on the **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about **12d Model** licenses for **any** CodeMeter (Network or Standalone) that is visible on Servers in the computer network.

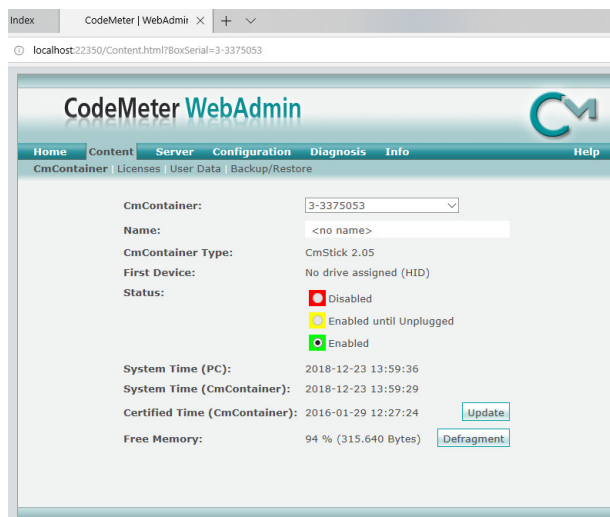
Depending on when the **CodeMeter** was installed on a particular Server, you can get different versions of the **WebAdmin** pages.

If on a Server the **WebAdmin Dashboard** page looks like:



In this case you need to follow instructions and images for **CodeMeter WebAdmin 6**

Otherwise if the **WebAdmin Home** page on a Server looks like:



In this case you need to follow instructions and images for **CodeMeter WebAdmin 5**

### Important Note:

It is possible to have different versions of **WebAdmin** installed on different Servers.

So depending on which Server you are looking at, you may need to swap between the notes for **WebAdmin 6** and **WebAdmin 5**.

For instructions on finding information about **CodeMeters** on a **particular Network Server**, see

[11.4.1 Getting Info on CodeMeters on a Particular Server - WebAdmin 6 on page 98](#)

[11.4.3 Getting Info on CodeMeters on a Particular Server - WebAdmin 5 on page 105.](#)