12dModel

Installing 12d Network CodeMeters

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1 Setting Up CodeMeter Servers and Clients

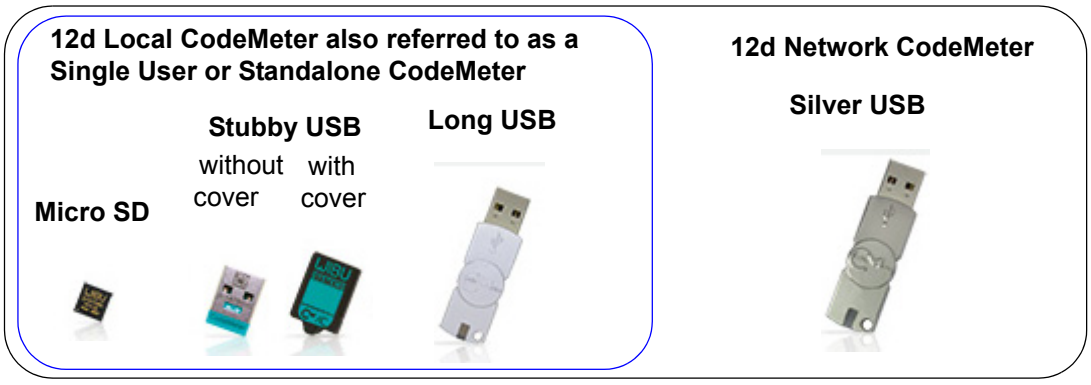
IMPORTANT WARNING

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

1.1 A Guide to the Notes

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. When using 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 around, there is a **NETWORK** CodeMeter.



*A **Network CodeMeter*** sits on the one computer (known as the ***12d License Server***) and users who have access to that Network CodeMeter can obtain a ***12d Model*** *license from the Network CodeMeter* (if a license is available) to run a copy of ***12d Model***.

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

1. the Network CodeMeter
2. the Dongle Drivers installation program which comes from either

(a) the ***12d Model Installation DVD*** supplied by **12d Solutions Pty Ltd**

OR

(b) the exe *12d_dongles_installation_date.exe* can be downloaded from the web site www.12d.com from the **Dongle Drivers** paragraph in the ***12d Model V11*** section of **Support >12d Model Updates** www.12d.com/multimedia/12d_Model_11.html.

3. a **nodes.4d** file to authorise any ***12d Model*** *11* licenses

   This is usually supplied in an email a the attached file ***nodes.12d11n***.

   Or you may already have it in a folder with the ***12d Model*** *11* authorization file ***nodes.12d11n*** or ***nodes.4d*** in it.

These notes are for

(a) Installing and setting up a new 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 Network CodeMeter.

(c) Setting up/Updating the **dongles4d** 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 Network CodeMeters.

(d) Setting up/Updating the **nodes.4d** file with the authorisation to match the **12d dongle** being accessed in a Network CodeMeter.

(e) Updating the ***12d Model*** licenses in a Network CodeMeter

and

(f) Monitoring Network CodeMeters.

An Adobe Acrobat (PDF) copy of these notes is on the ***12d Model Installation DVD*** in the folder

Documentation\Installing 12d Network CodeMeters

WARNING

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

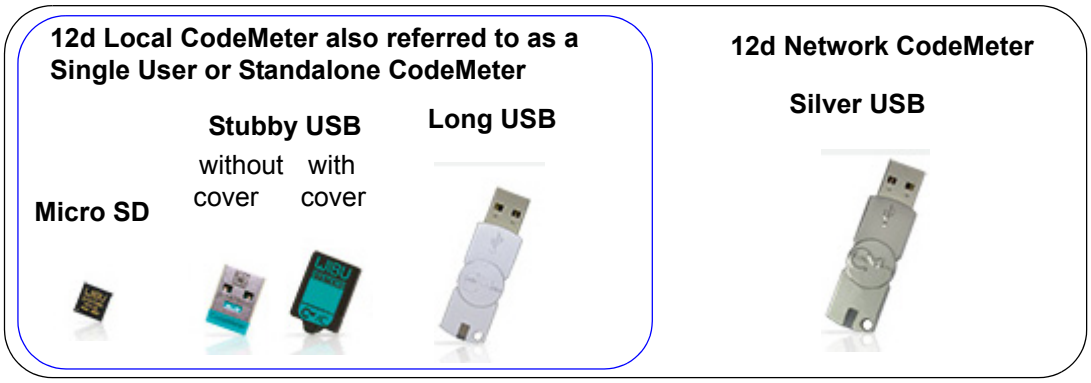
If you already have a Network CodeMeter and are simply updating a ***12d dongle*** inside the Network Codemeter, go to the section 6.2 Updating Licenses in a Network CodeMeter on page 45.

if your are installing a Network CodeMeter on the computer for the first time, please continue to the next section 1.2 Definitions on page 7.

1.2 Definitions

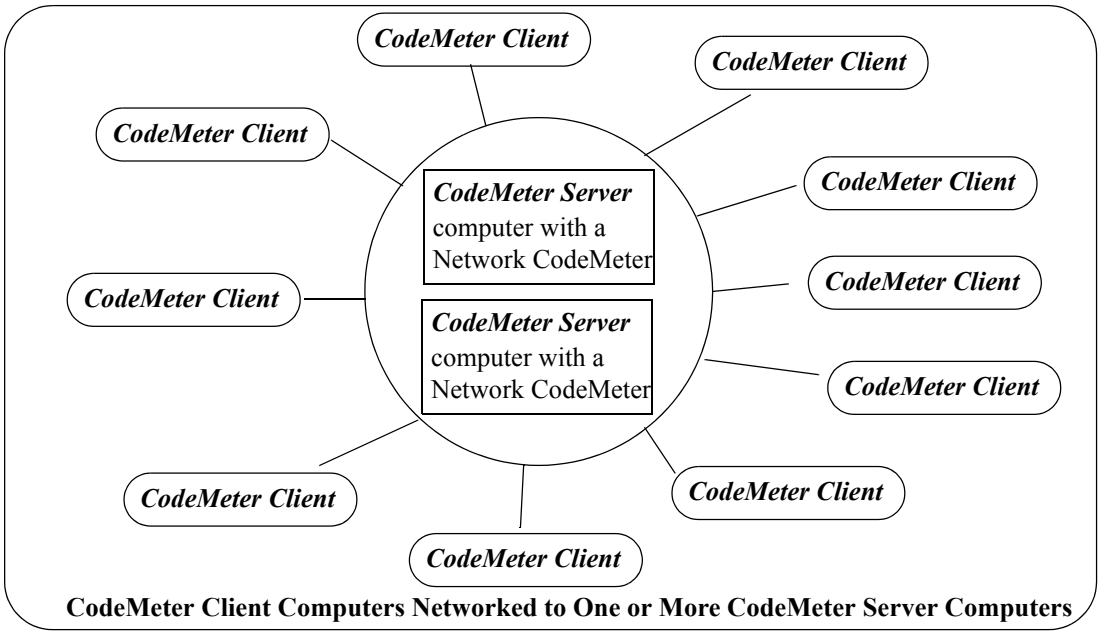
A ***12d Local CodeMeter*** *(also known as a* ***Standalone*** *or* ***single-user Codemeter)*** is a Codemeter that is attached to a computer and only allows ***12d Model*** to be run on that computer. This is the default installation for ***12d Model***. If the **Local Codemeter** is labelled with a **12d dongle number** then it will start with ***5c***.

A ***12d Network CodeMeter*** is a CodeMeter that controls a set number of ***12d Model*** licenses. The 12d *Network CodeMeter* can be accessed by any other computer on the network and allows copies of ***12d Model*** to be run on those computers. Each running copy of ***12d Model*** requires a license from the *12d Network CodeMeter*. *12d Network CodeMeter*s are metallic and a silver colour, and are labelled with a number starting with ***ec***.



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 Network CodeMeter attached to it.



CodeMeter Client Computers Networked to One or More CodeMeter Server Computers

Both ***CodeMeter Servers*** and ***CodeMeter Clients*** must have the **CodeMeter Drivers** and **CodeMeter Runtime Server** service installed and running and this is described in 2 Installing the CodeMeter Drivers on page 9.

CodeMeter Servers must also have the **CodeMeter Network Server** running and this is described in Step 6. Starting the Network Server on page 22.

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 4 dongles.4d and nodes.4d on page 23.

Important Note for Going From Local CodeMeters to CodeMeter Servers

The *CodeMeter drivers* are exactly the same ones that are used for a Local (standalone or single-user) CodeMeter. So if a computer is already been used for a 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 **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 ***Network CodeMeter*** rather than a Local CodeMeter (see 4 dongles.4d and nodes.4d on page 23).

Also a valid **nodes.4d** file for the **12d dongle** inside the ***Network CodeMeter*** is needed (see 6 The CodeMeter Control Centre Software on page 41).

2 Installing the CodeMeter Drivers

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

This section is for installing of the *CodeMeter drivers*.

This is required for the computer which will have the Network CodeMeter attached to it (the **CodeMeter Server**) and also for the computers that are **CodeMeter Clients** that will use the CodeMeter Server.

If the computer is to be a CodeMeter Sever but already has the CodeMeter Drivers installed on it, then go straight to 3 Setting up a Network CodeMeter on page 18.

If the computer is already set up as a CodeMeter Server and you are adding a new **12d dongle** to the Network CodeMeter, or upgrading the number of 12d licenses on a **12d dongle** in the Network CodeMeter, go to 6.3.1 Updating Using the .WibuCmRaU File on page 49.

If you are replacing the existing Network CodeMeter by a new Network CodeMeter, go to 8 Replacing an Existing Network CodeMeter on page 58.

Step 1.Installing the CodeMeter Drivers and CodeMeter Control Centre

The first step is to install the CodeMeter *drivers* which are all installed from the ***12d Model Installation DVD*** or downloaded from the **Dongle Drivers** section in **Support >12d Model Updates** on www.12d.com.

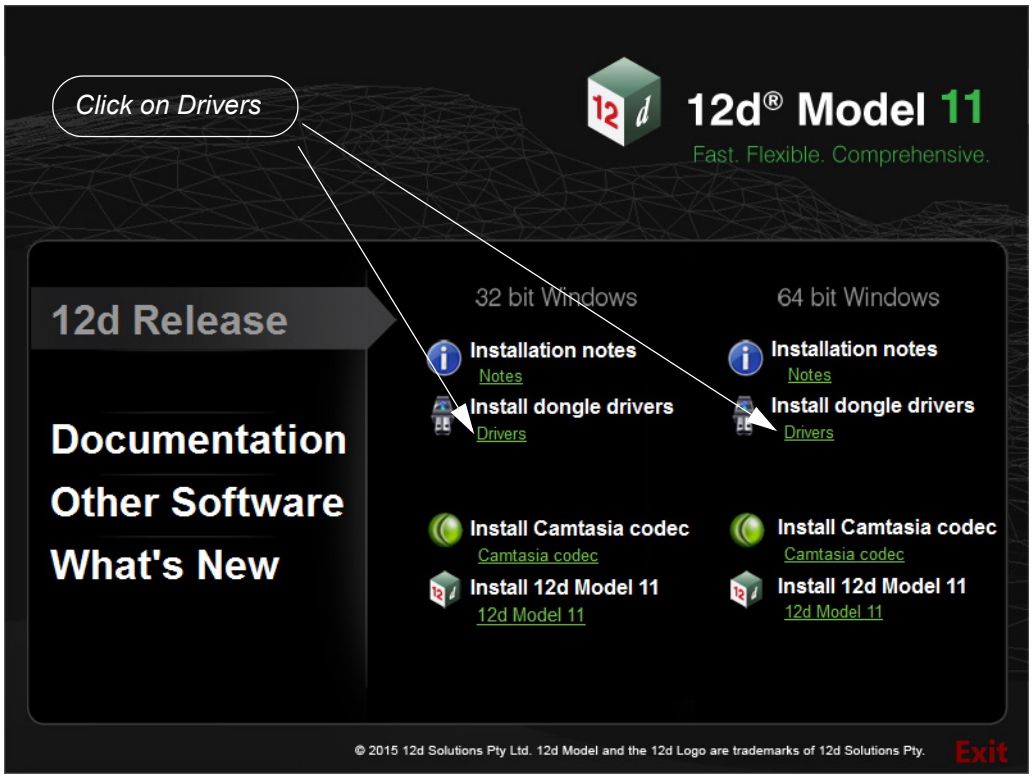
You need to have System Administrator rights to install the CodeMeter drivers.

(a) In you are using the ***12d Model Installation DVD*** into the DVD drive.

On inserting the DVD, the ***12d Model Installation*** program automatically begins.

If it doesn't, simply double click on the program ***Launch.exe*** from the DVD.

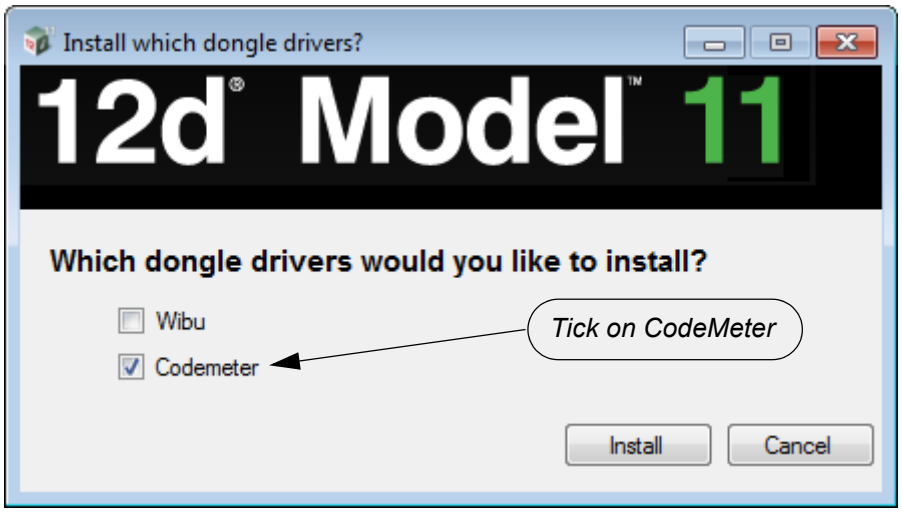
The ***12d Model Release*** screen will appear.



On the ***12d Model*** *Release* screen, under *Install Dongle Drivers*, click on ***Drivers*** to bring up the **Dongle Drivers** panel:

(b) If you are using the *12d_dongles_installation_date.exe* downloaded from www.12d.com/multimedia/12d_Model_11.html, just click on the exe.

In both cases, the **Install which dongle drivers?** panel will appear.



Tick on ***CodeMeter*** and then select ***Next***:

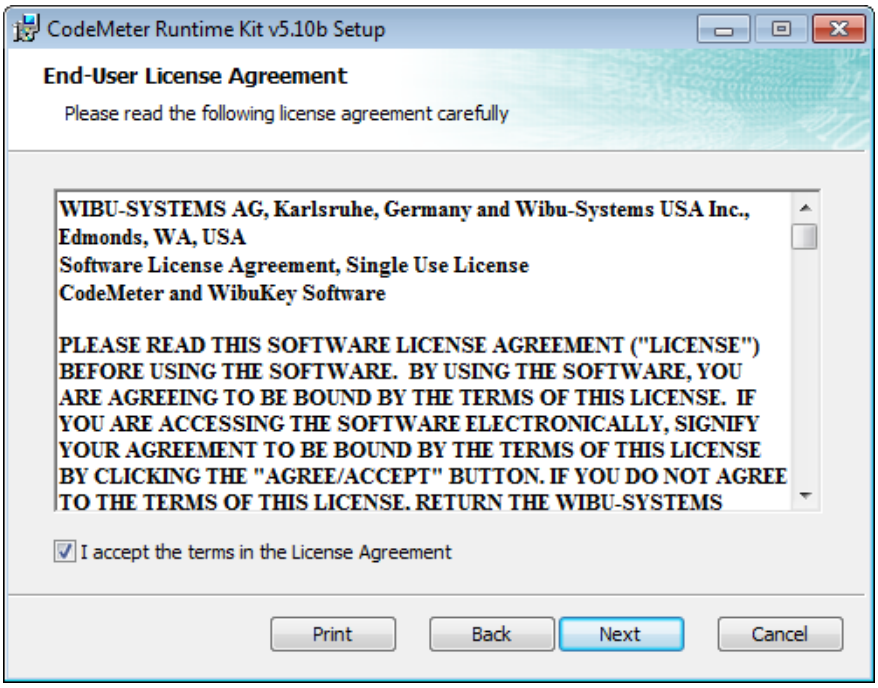
The script to install the CodeMeter drivers begins.

Installing the Codemeter Drivers:

Codemeter Setup *Codemeter Runtime Kit Setup*

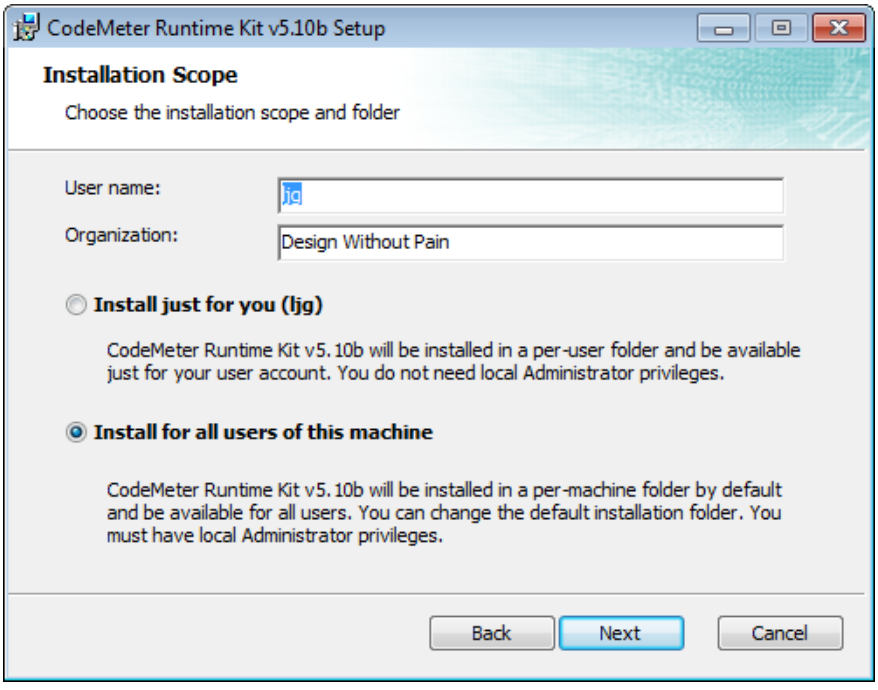
Select ***Next*** to continue

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

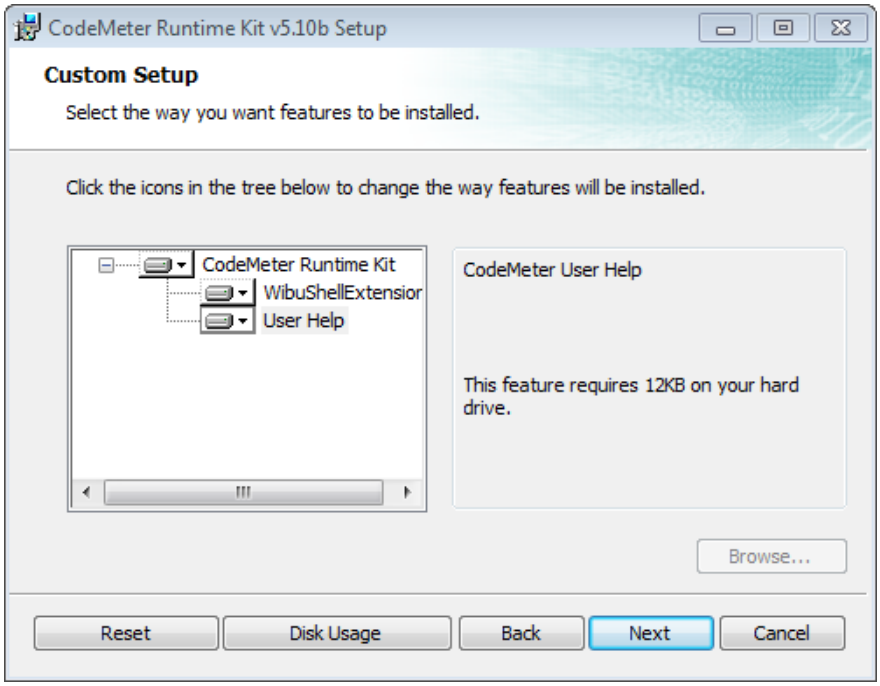
Installation Scope *Codemeter Runtime Kit Setup*



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

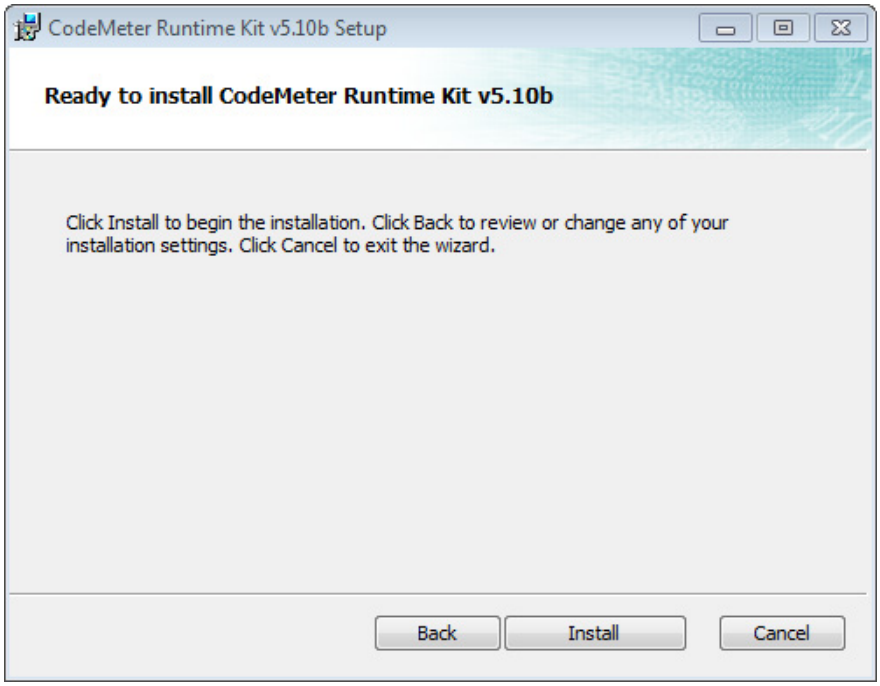
Tick either **Install just for you** or **Install for all users of this machine**
and then select ***Next*** to continue

Custom Setup *Codemeter Runtime Kit Setup*



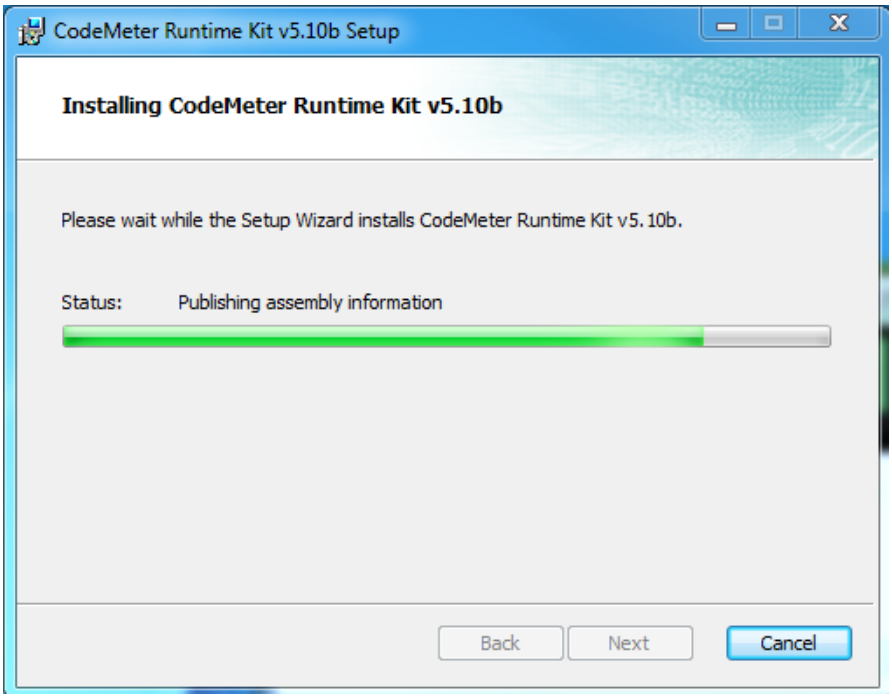
Select ***Next*** to continue

Ready to Install *Codemeter Runtime Kit Setup*



Select ***Install*** to continue

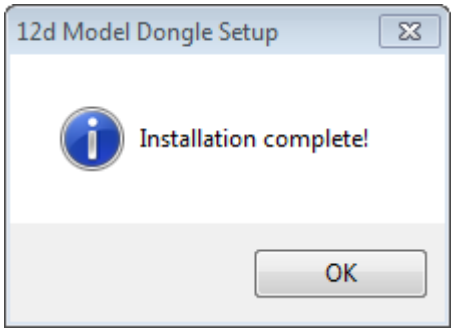
Installing *Codemeter Runtime Kit Setup*



Completed *Codemeter Runtime Kit Setup*

Select ***Finish*** to end

The **Codemeter** dongle drivers have now been installed and the ***12d Model*** **Dongle Setup** screen will appear.



click ***OK***

The ***12d Release*** screen then re-appears.

Click on ***Exit*** to exit the Installation DVD.

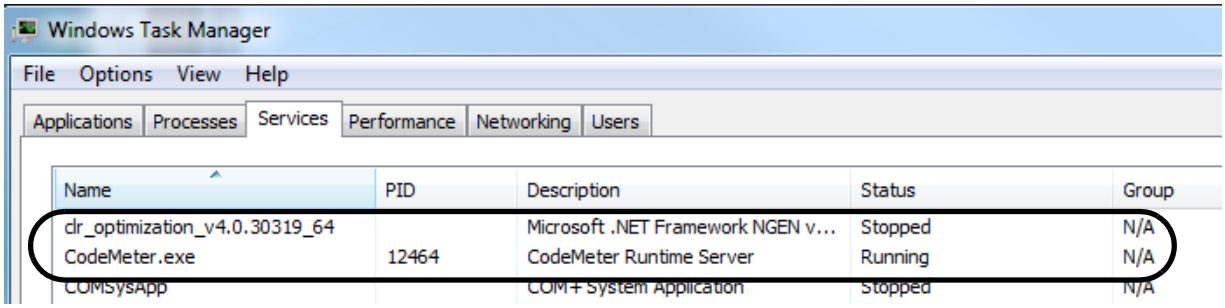
What is Done to the Computer By Step 1

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**.



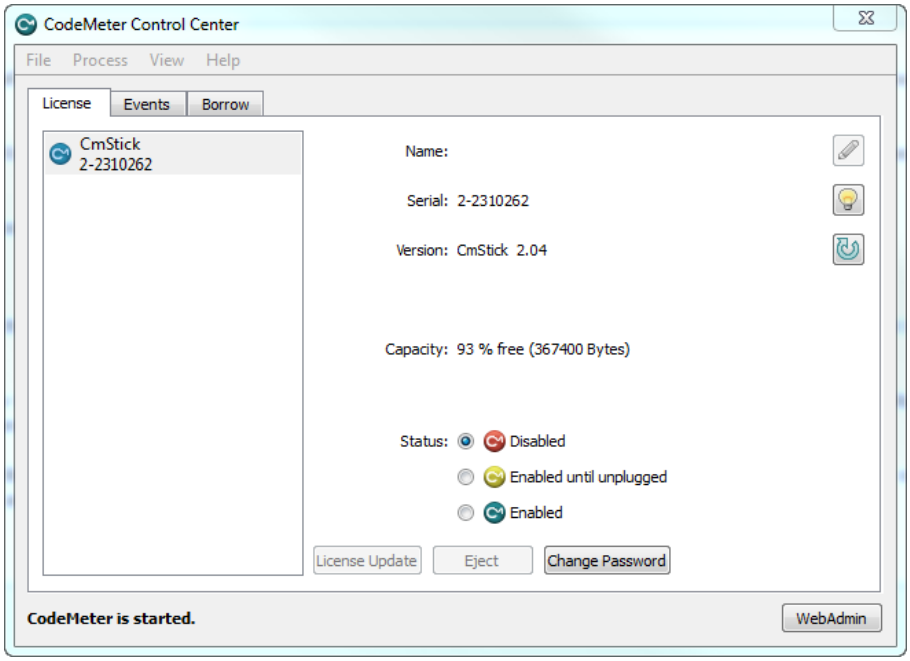
If for some reason the **CodeMeter Runtime Server** is shown as **Stopped**, to restart it again go to Step 6. Starting the Network Server on page 22.

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 Centre** which shows any Codemeters that are attached to the this computer. The **CodeMeter Control Centre** 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 3 Setting up a Network CodeMeter on page 18.

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

(a) set up the **dongles.4d file** to see the **Network CodeMeter** (and if required a particular 12d dongle inside the Network CodeMeter)

and

(b) set up the **nodes.4d** with the authorisation for the required 12d dongle number.

For setting up **dongles.4d** and **nodes.4d**, see 4 dongles.4d and nodes.4d on page 23.

3 Setting up a Network CodeMeter

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

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

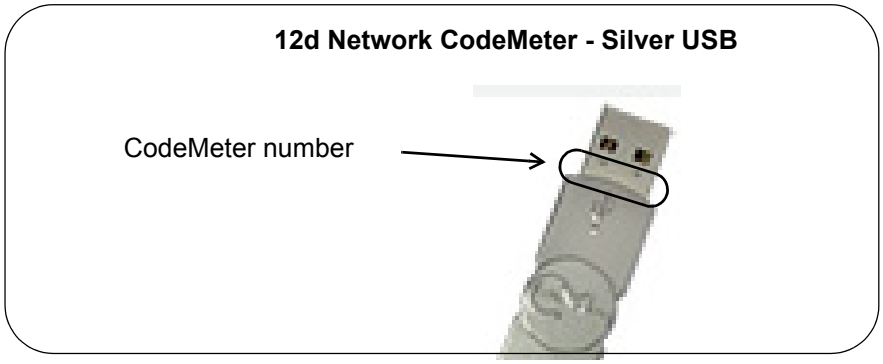
These steps will complete the setting up of the Network CodeMeter as a **CodeMeter Server**.

Step 2.Attaching the Network CodeMeter

The **physical CodeMeter number** can be found on the part of the 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.

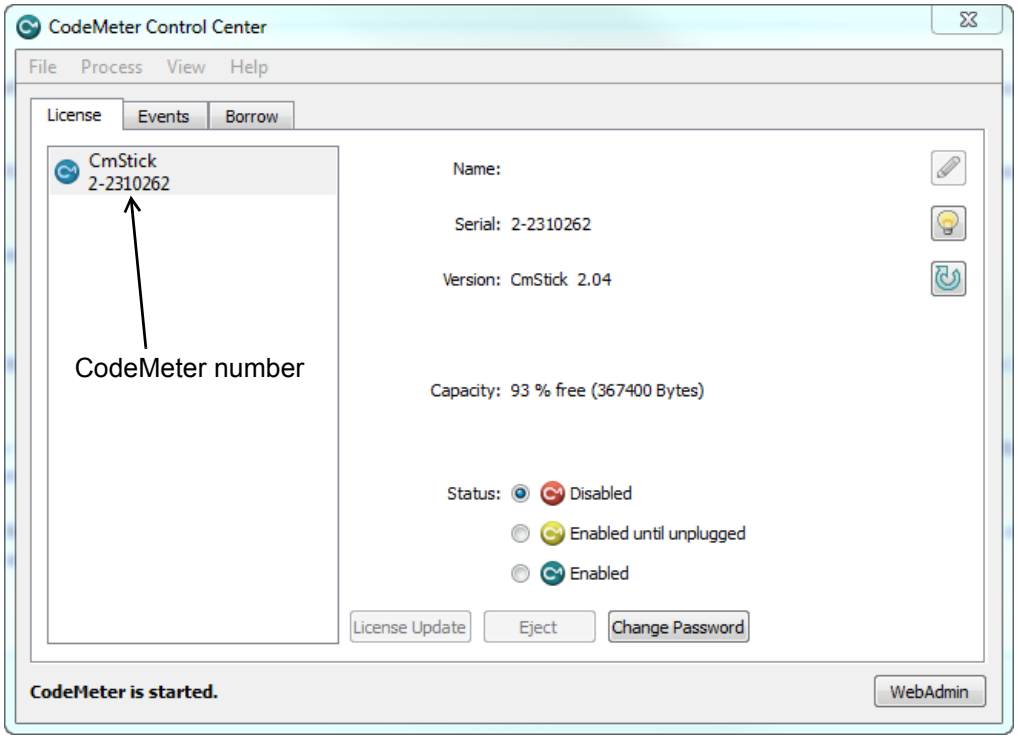
If the CodeMeter number can't be read, it is also possible to obtain the number after the Network CodeMeter is plugged into the USB port of the computer (see Step 3. Checking that the Network CodeMeter is Visible on page 19.)



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 Network CodeMeter is Visible

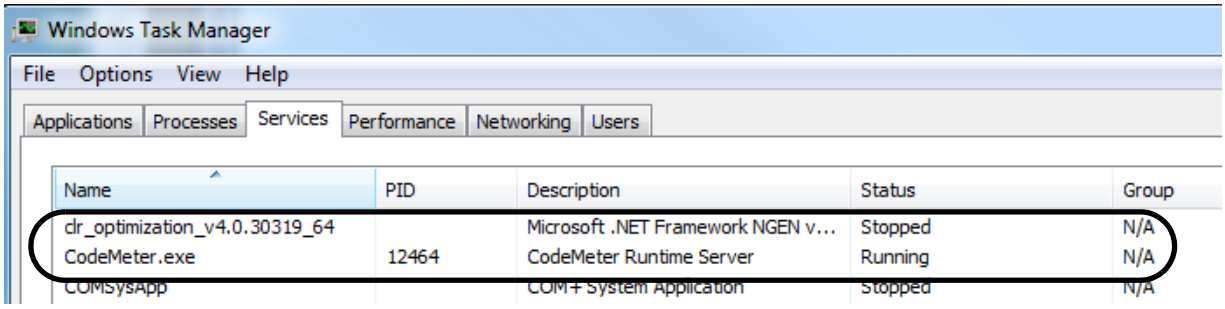
Click on the **CodeMeter** icon that was installed on your task bar to bring up the **CodeMeter Control Centre** which shows what Codemeters are on this computer.



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

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 Centre** 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 Network Server on page 22.

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

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

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

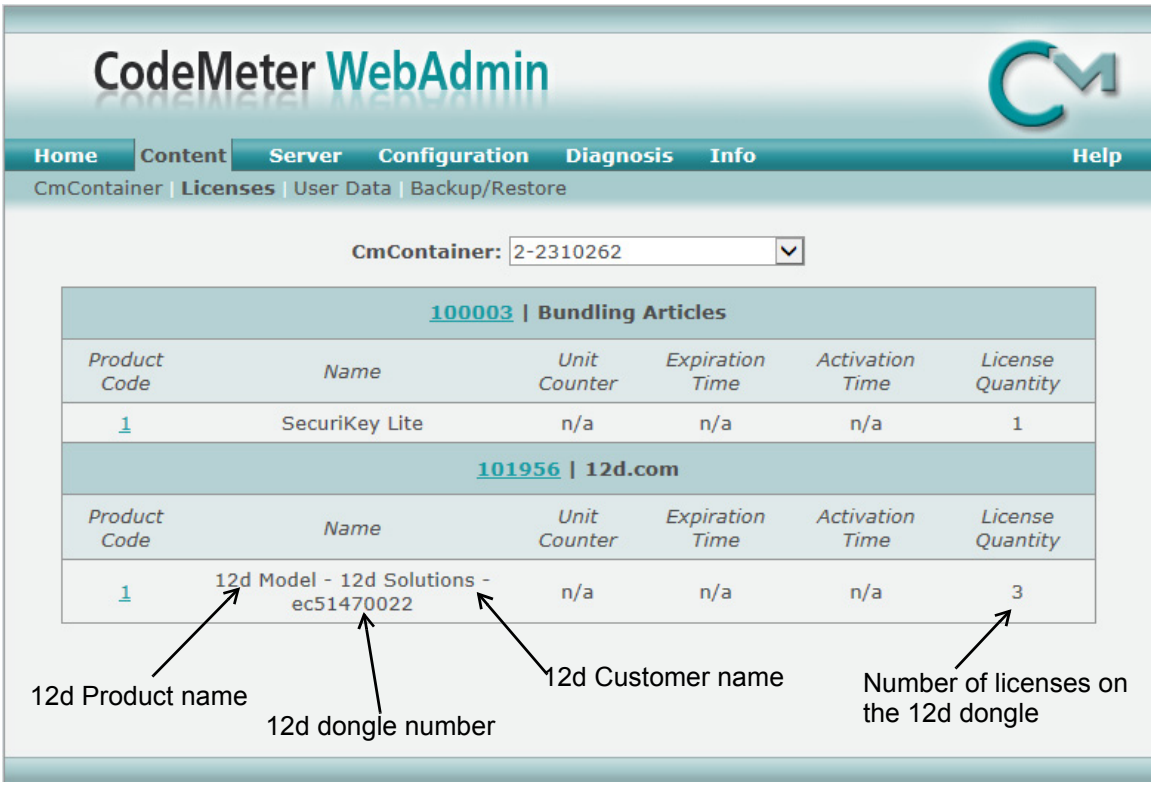
There must also be a **12d network dongle** inside the Network CodeMeter.

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

Aside: The **12d network dongle** issues the ***12d Model*** licenses but the actual ***12d Model*** modules that go with a license from a **12d network 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 emailing a new entry for the nodes.4d file.

Clicking on the **WebAdmin** button on the **CodeMeter Control Centre** brings up the **CodeMeter WebAdmin** panel which is used to display information about any of the CodeMeters that it can see.

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



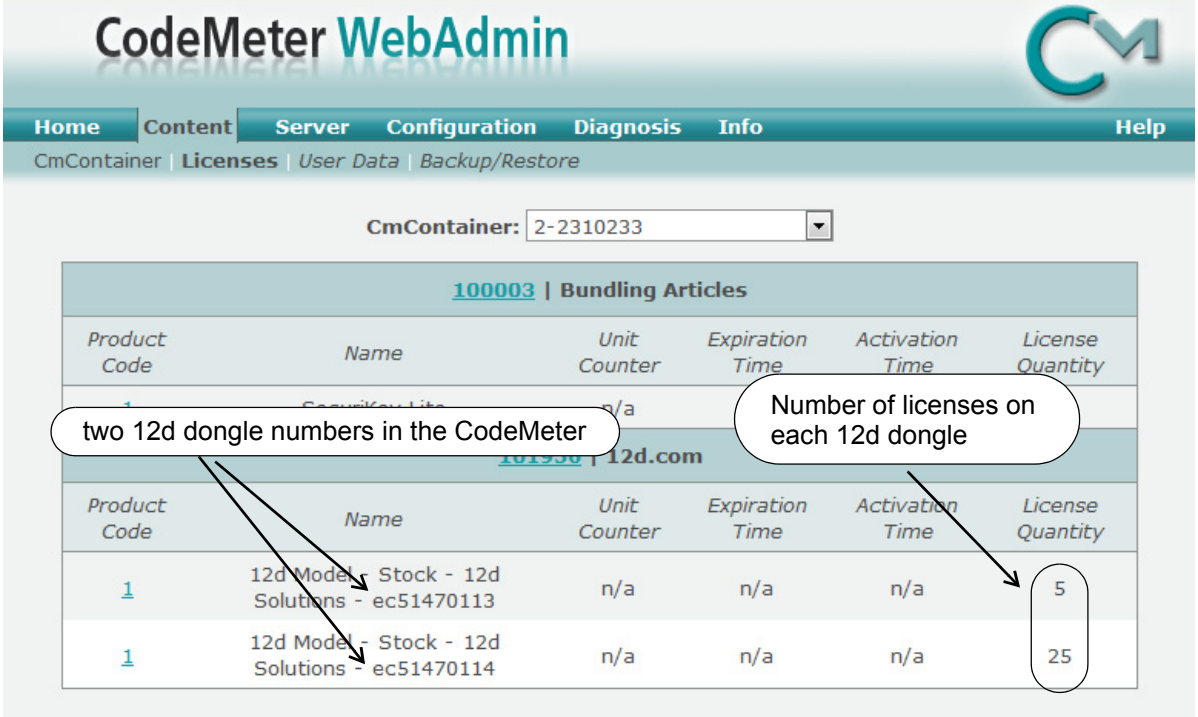
If there are no **12d dongle number** displayed inside the Network CodeMeter, or no **12d dongle number** starting with **ec**, contact your ***12d Model*** **Reseller**.

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 **Stopped**, to restart it again see Step 6. Starting the Network Server on page 22.

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,



Within ***12d Model***, it is possible to address specific Network CodeMeters, and specific 12d dongles ***within*** a Network CodeMeter. This is done via the **dongles.4d** file and how it is set up is described in 4.1 Updating dongles.4d on page 24.

The **CodeMeter WebAdmin** panel can be used to look at the CodeMeters on any computer that is visible on the network. To examine a CodeMeter on another computer, simply click on the **Home** tab and then select the required computer in the **Host Name** field.

Step 6.Starting the Network Server

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

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

Note: The **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 Centre**.

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

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

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

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

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

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 **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 a Network CodeMeter.

For the updating of **dongles.4d**, see 4.1 Updating dongles.4d on page 24.

For the updating of **nodes.4d,** see 4.2 Updating nodes.4d on page 32.

4.1 Updating dongles.4d

The **dongles.4d** file lists the computers to search for Network CodeMeters, Local CodeMeters and 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 from the ***12d Model Installation DVD***, 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 **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 Network CodeMeter** and not just use a Local CodeMeter.

The updated **dongles.4d** is then placed in the standard search path for a set up file for that computer. For example, **dongles.4d** could be in c:\12d\11.00\User, or 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

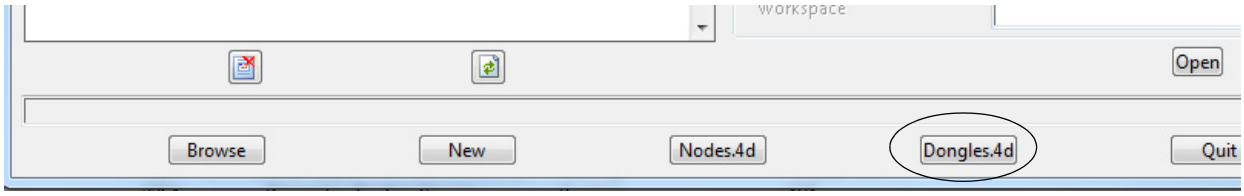
In the initial ***12d Model*** installation, the *dongles.4d* file is a set up file and is installed in the folder

Program files\12d\12dmodel\11.00\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 the computer that the *Network CodeMeter* is on. It can be done from any computer.

To edit the **donges.4d** file you need to start up ***12d Model*** BUT you won't have to open a ***12d Model*** project. The current ***dongles.4d*** file can be edited from by simply starting up ***12d Model*** and clicking on the **dongles.4d** button on the front panel.

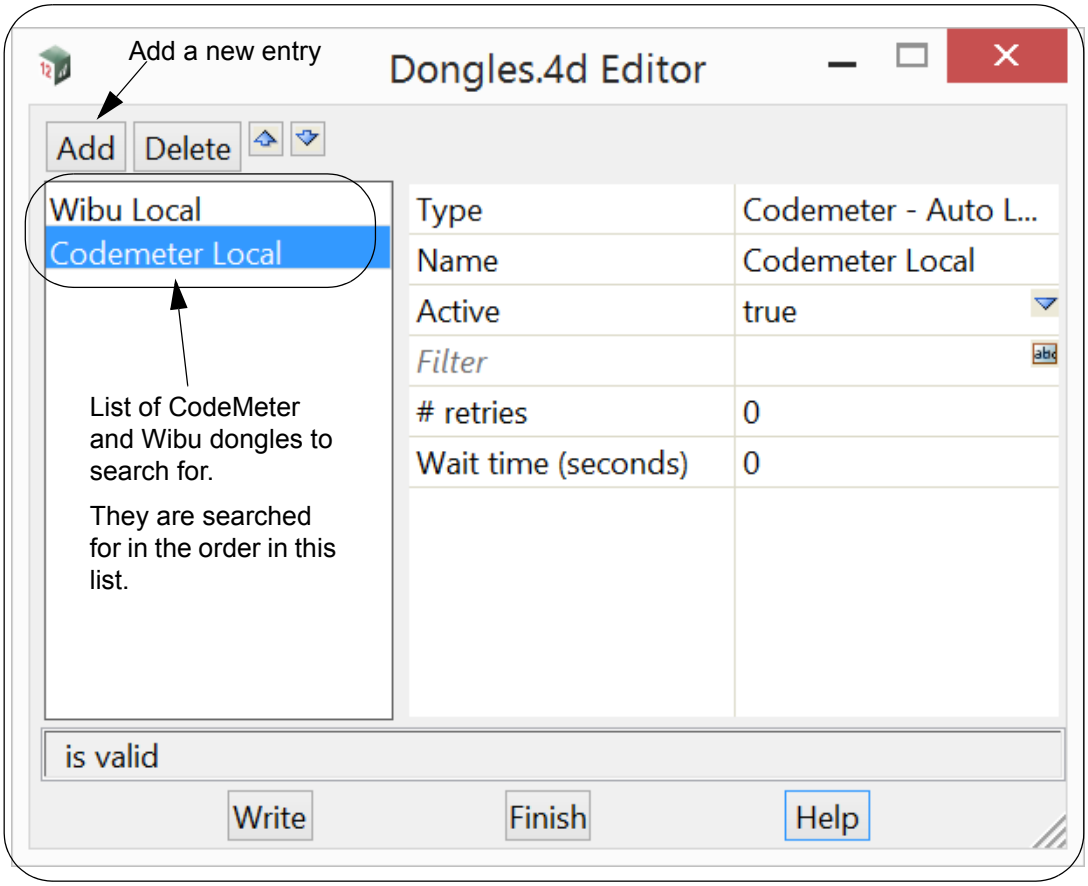


Or if the ***12d Model*** you are running is already authorised and in an open project, by picking the option

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

Both of these bring up the **Dongles.4d Editor** panel.

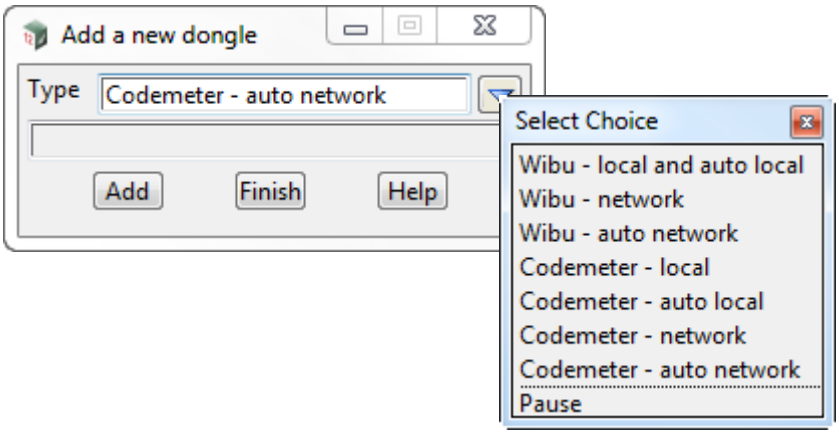
If the ***dongles.4d*** is the one installed with ***12d Model*** then it will only be looking for **Local** (standalone) **CodeMeters** and Local (standalone) Wibus:



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

.



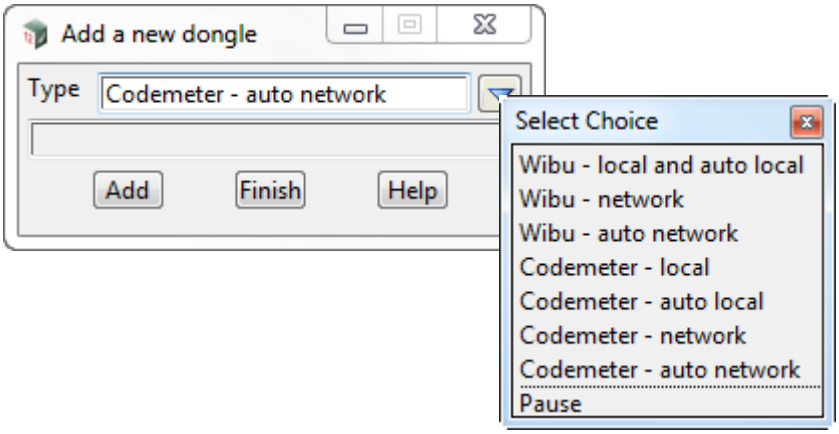
To add an entry to search for all Network CodeMeter on the network, see 4.1.1 Search for any Network CodeMeter on page 26.

To add an entry to use a particular 12d dongle number in a particular Network CodeMeter, see 4.1.2 Using a 12d Dongle Number in a Network CodeMeter on page 28.

4.1.1 Search for any Network CodeMeter

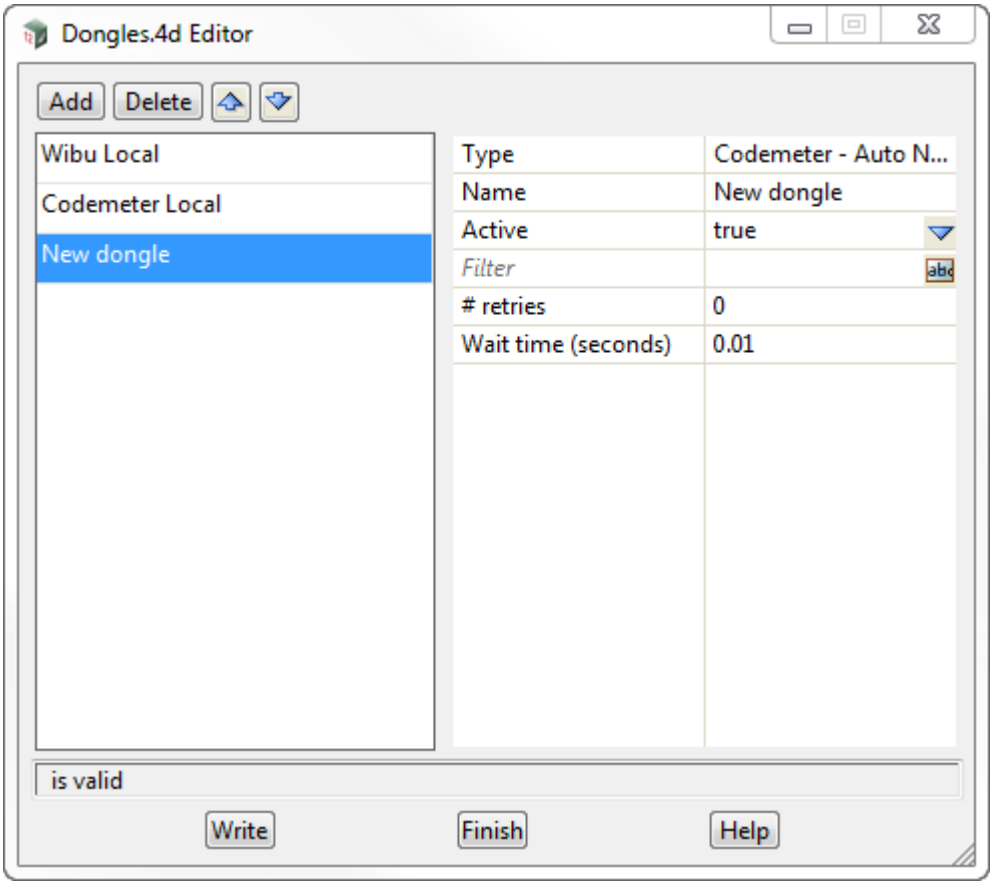
The simplest entry to add is the one that searches for all 12d Network CodeMeters on the network.

.



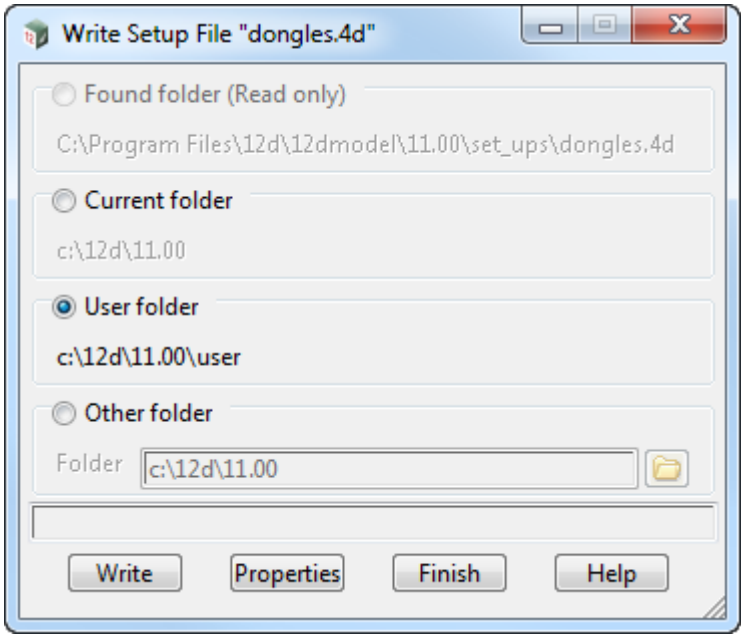
For this case, select **Codemeter - auto network** for **Type** and then click on **Add.**

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**.

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 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 that the **dongles.4d** we've saved will search for a Local Wibu or Local CodeMeter on the computer first and then search for a Network CodeMeter. If you didn't want to search for a Local CodeMeter at all, simply highlight the **Codemeter - auto network** entry and click on the delete icon to delete it. If you want to search for a Network CodeMeter first before a Local CodeMeter then highlight the **Codemeter - auto network** entry and use the Up arrow icon to move that entry to the top of the list.

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 authorisation will fail because ***12d Model*** is no longer being instructed to use the Network CodeMeter.

4.1.2 Using a 12d Dongle Number in a Network CodeMeter

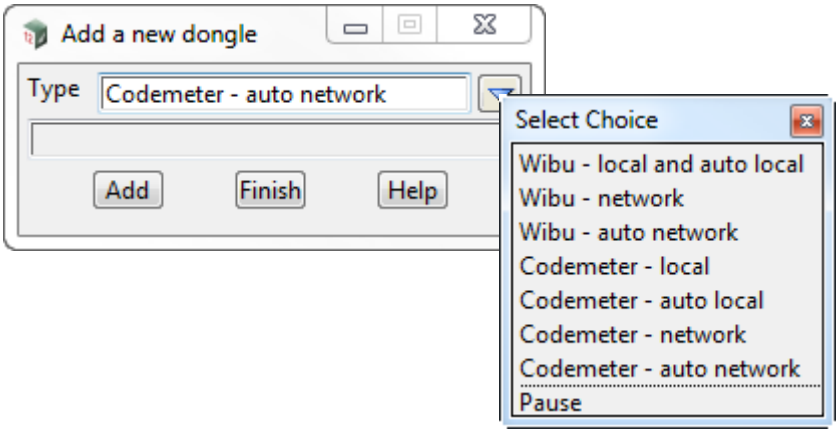
To point to a particular **12d dongle number**, it helps to know the **physical** Codemeter number that the **12d dongle number** is in.

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 Network Dongles Inside the Network CodeMeter.

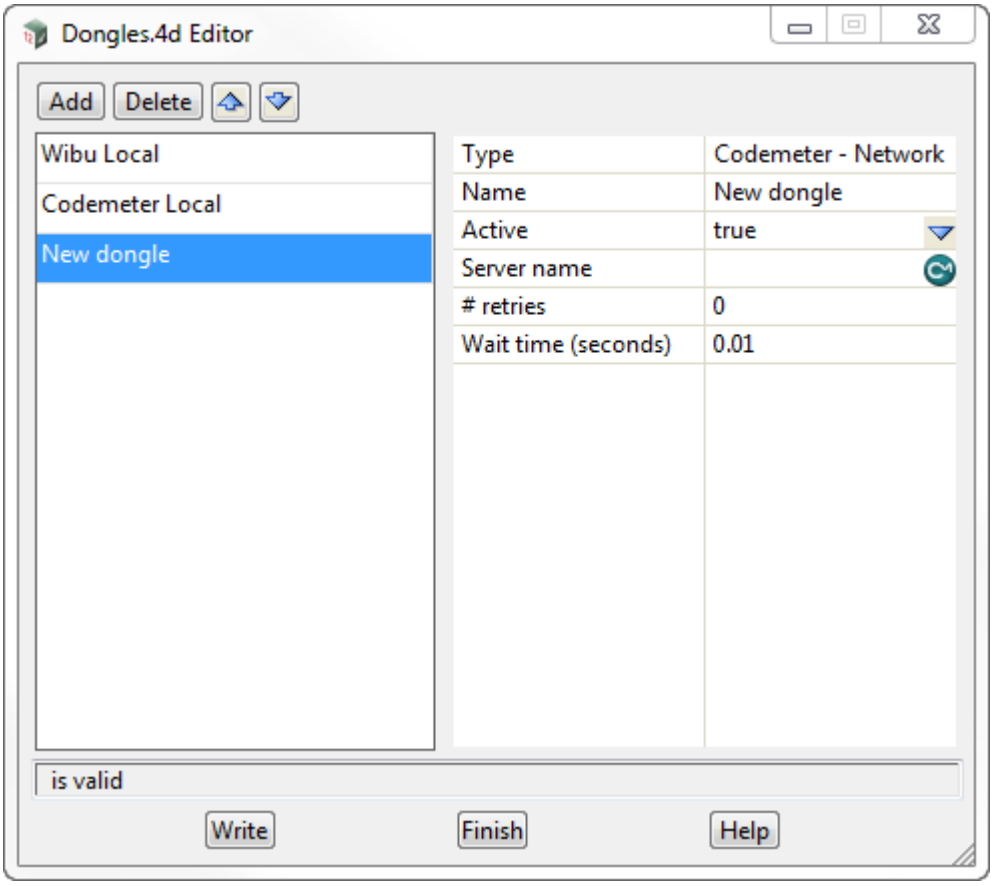
Note: if you still don't know what Network CodeMeter the 12d dongle is in, it is possible to find it when using the **Dongles.4d Editor** but you will need to look through the list of physical CodeMeter numbers and see which one contains the required 12d dongle number.

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.**

.



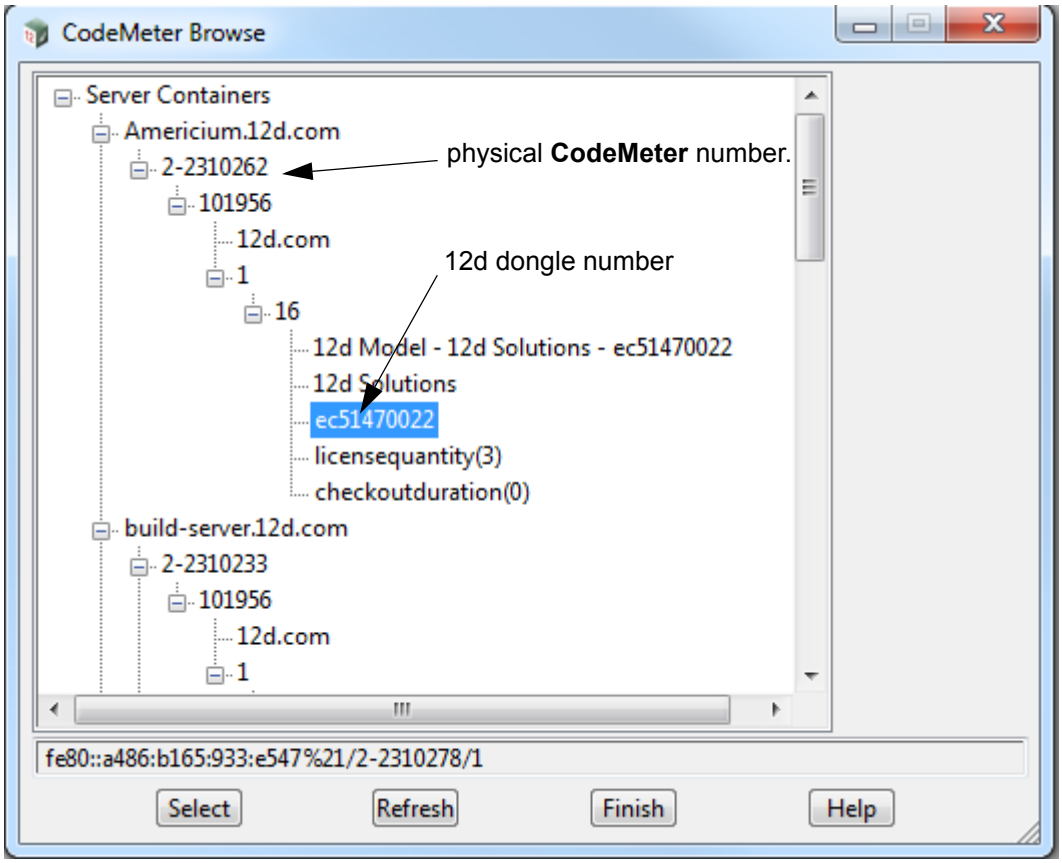
A new entry with the default name **New dongle** is added to the bottom of the list.



Click in the **Name** field and change **New dongle** to whatever you want but it helps to have the 12d dongle number in it. 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:

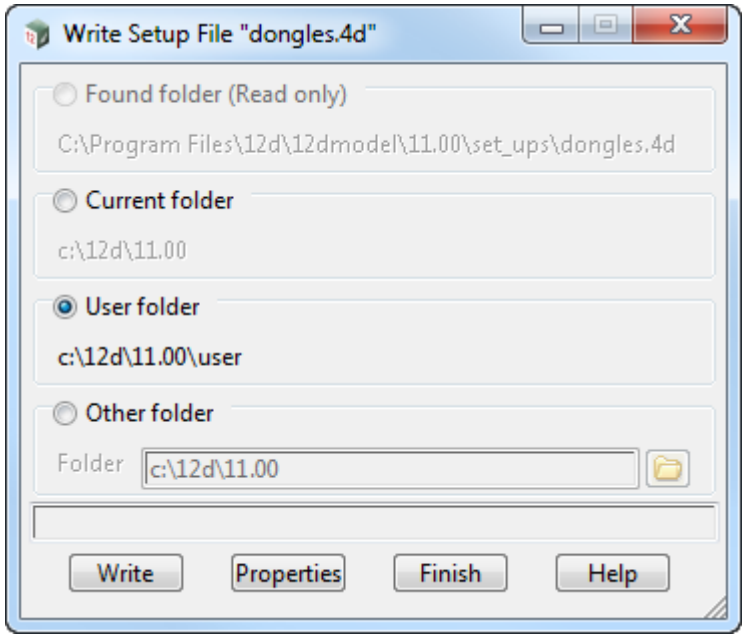
CMUNC is the 12d CodeMeter Universal Naming Convention. An example would be

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

where ***server_name*** is the server name (Americium) 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 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 that the **dongles.4d** we've saved will search for a Local Wibu or Local CodeMeter on the computer first and then search for a Network CodeMeter. If you didn't want to search for a Local CodeMeter at all, simply highlight the **Codemeter - auto network** entry and click on the delete icon to delete it. If you want to search for a Network CodeMeter first before a Local CodeMeter then highlight the **Codemeter - auto network** entry and use the Up arrow icon to move that entry to the top of the list.

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 authorisation will fail because ***12d Model*** is no longer being instructed to use the Network CodeMeter.

For the updating of **nodes.4d**, see 4.1 Updating dongles.4d on page 24.

4.2 Updating nodes.4d

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

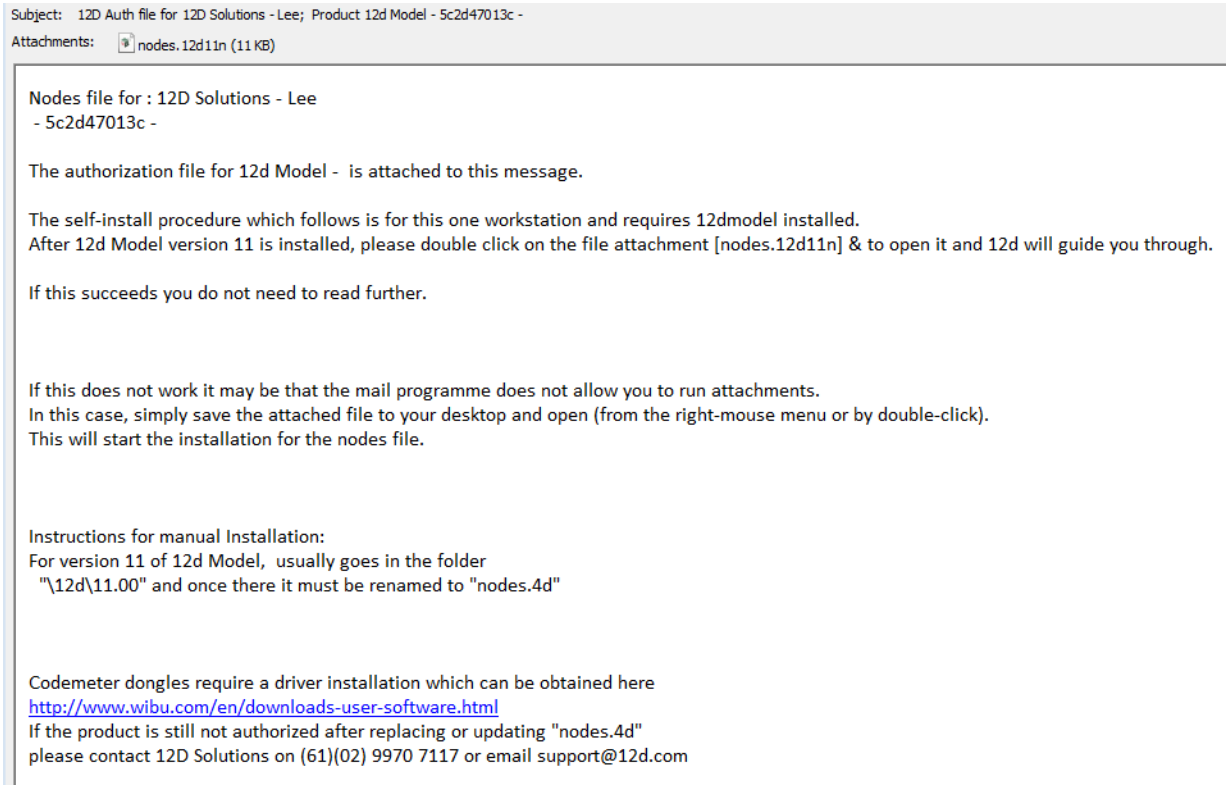
The information inside ***nodes.4d*** controls

(a) ***which 12d dongles*** are authorised to run ***12d Model***

(b) what ***version*** of ***12d Model*** will run for a 12d dongle

(c) what ***modules*** are authorised for a 12d dongle

To authorise ***12d Model*** to run with ***your 12d dongles***, the file ***nodes.12d11n*** will have been emailed to you by your local ***12d Model*** Reseller.



Subject: 12D Auth file for 12D Solutions - Lee; Product 12d Model - 5c2d47013c -

Attachments: nodes.12d11n (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 11 is installed, please double click on the file attachment [nodes.12d11n] & to open it and 12d will guide you through.

If this succeeds you do not need to read further.

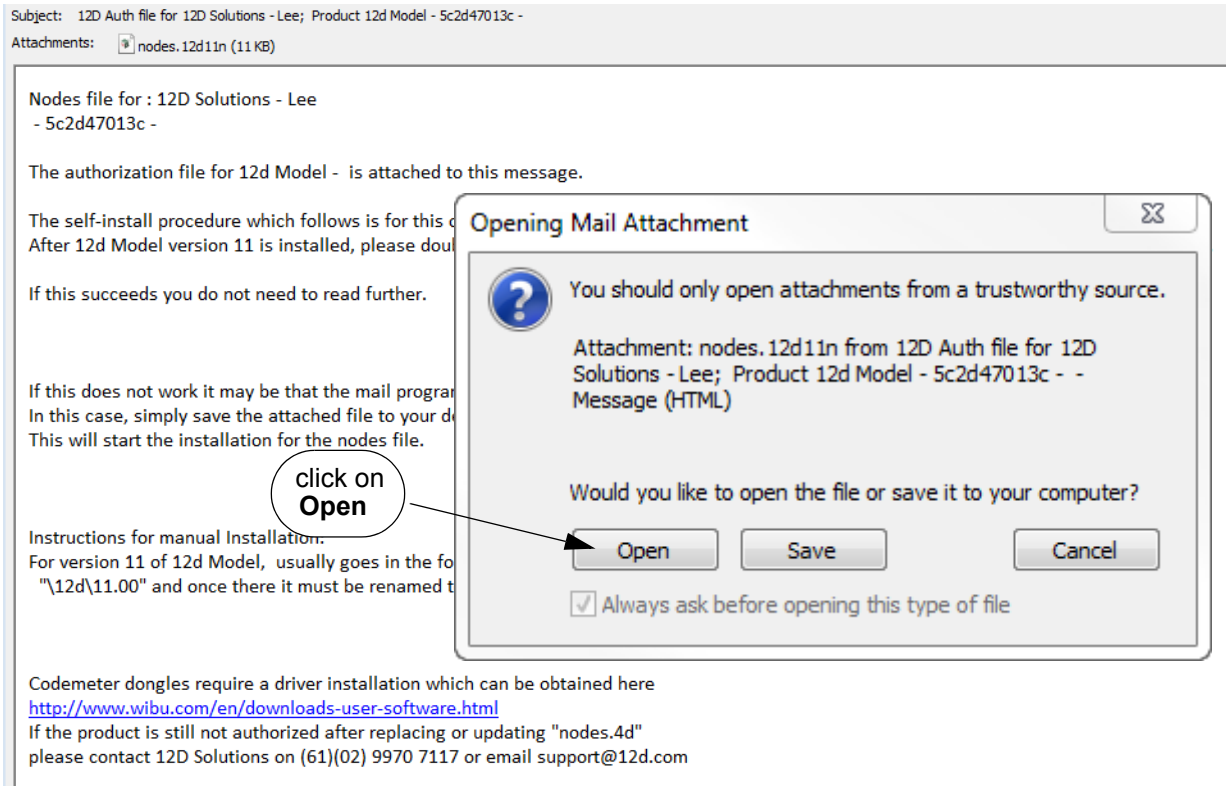
If this does not work it may be that the mail programme does not allow you to run attachments.
In this case, simply save the attached file to your desktop and open (from the right-mouse menu or by double-click).
This will start the installation for the nodes file.

Instructions for manual Installation:
For version 11 of 12d Model, usually goes in the folder
"\12d\11.00" and once there it must be renamed to "nodes.4d"

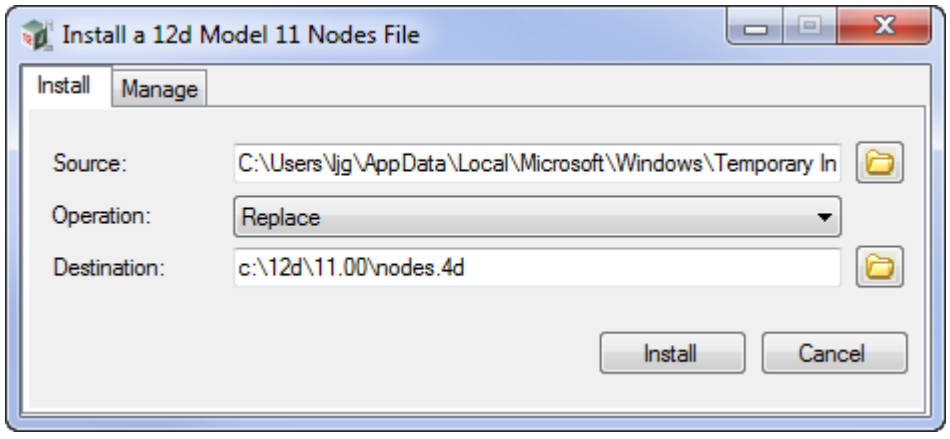
Codemeter dongles require a driver installation which can be obtained here
http://www.wibu.com/en/downloads-user-software.html
If the product is still not authorized after replacing or updating "nodes.4d"
please contact 12D Solutions on (61)(02) 9970 7117 or email support@12d.com

Installing ***12d Model*** on a computer sets up a *Windows* file association so that a ***nodes.12d11n*** file is recognised brings up the **Install a 12d Model 11 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.12d11n*** and the **Opening Mail Attachment** panel comes up.



Click on ***Open*** and then the **Install a *12d Model 11* Nodes File** panel appears.



The choices for **Operation** are:

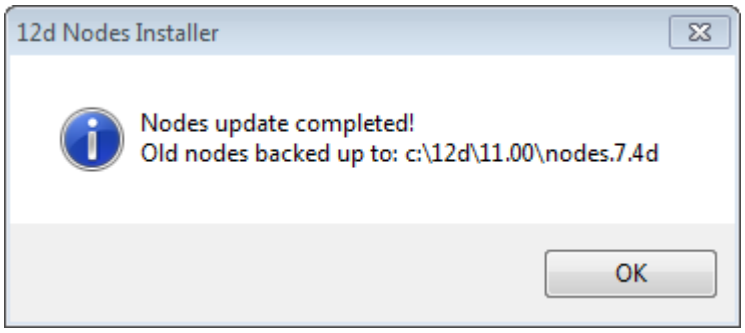
Prepend *- if a nodes.4d file already exists, the information in the nodes.12d11n file is added to the beginning of the existing nodes file. A backup up copy of the existing nodes.4d is created.*

Replace *- if a nodes.4d file already exists, it is replaced by a new nodes.4d file with the information in the nodes.12d11n 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.12d11n file is added to the end of the existing nodes file. A backup up 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\11.00***) and if a **nodes.4d** file already existed, a backup copy of it is made.



Note - if you don't have the file ***nodes.12d11n*** 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.12d11n*** file, double click on that file and the **Install a 12d Model 11 Nodes File** panel should appear and you continue with the instructions above.

If that doesn't work, start up ***12d Model 11*** 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 11 Nodes File** panel and you can browse for the ***nodes.12d11n*** 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 Network CodeMeter, the updated **nodes.4d** is then placed in the standard search path for the **User** folder.

For example, **nodes.4d** in c:\12d\11.00, 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**.

5 Certifying the CodeMeter

The **Network CodeMeters** use the **Certified Time** capability of the CodeMeter.

This means that before two months after the Certified Time in the CodeMEter, the **Network CodeMeter** that your ***12d Model*** licenses are coming from must communicate over the Internet with a **Certified Wibu Time Server** and check that there is no problem with the **Network CodeMeter.**

If there are no problems, then the Certified Time on the CodeMEter will be updated to the current time.

See

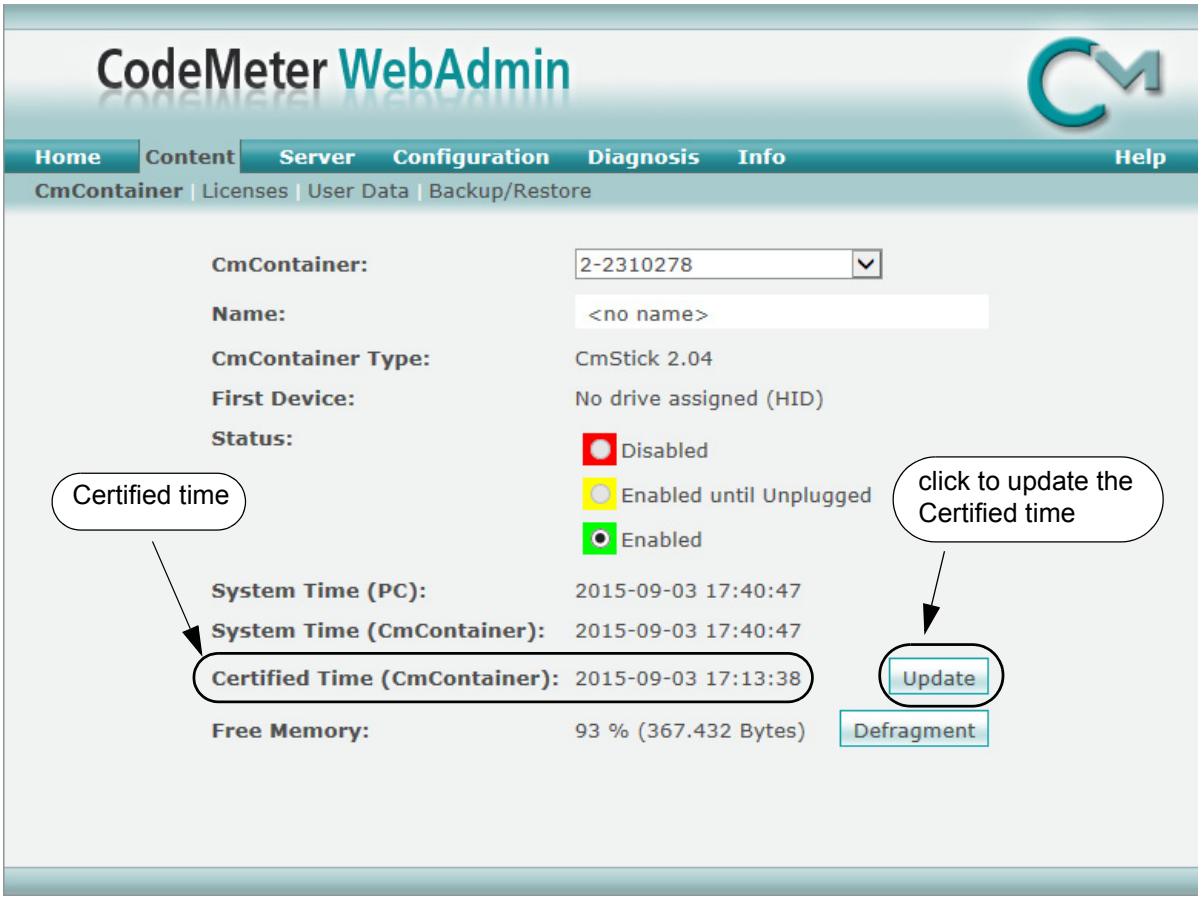
5.1 Displaying the Certified Time on page 35
5.2.1 Manually Updating the Certified Time on page 37
5.2.2 Automatically Updating the Certified Time on page 39

5.1 Displaying the Certified Time

The time that the CodeMeter was last certified (the *Certified Time)* can be displayed in the **CodeMeter WebAdmin** panel.

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

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



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

5.2 Updating the Certified Time

To update the **Certified Time** in the **Network CodeMeter**, you need to access over the Internet to a **CodeMeter Time Server** (see 5.3 Time Servers for Certified Time).

This Internet communication is done through a set IP port (see 9 Port Address for Communication).

The **Certified Time** can be updated either

(a) **manually** - see 5.2.1 Manually Updating the Certified Time)

or

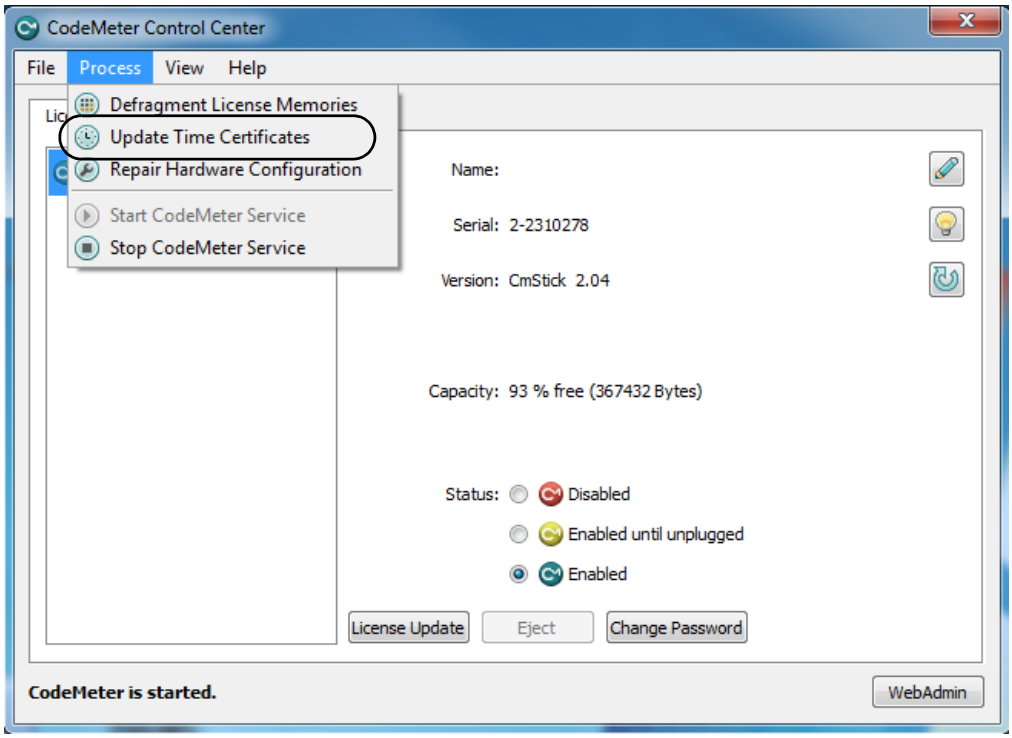
(b) **automatically** - see 5.2.2 Automatically Updating the Certified Time).

5.2.1 Manually Updating the Certified Time

To update the **Certified Time** in the **Network CodeMeter**, you need to access through the Internet to a **CodeMeter Time Server** (see 5.3 Time Servers for Certified Time). This Internet communication is through a set IP port (see 9 Port Address for Communication).

The Certified Time in a Network CodeMeter can be updated manually by either:

(a) **CodeMeter Control Center** - click on **Process >Update Time Certificates**

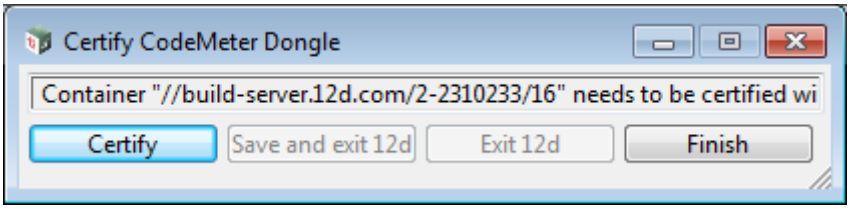


(b) **CodeMeter WebAdmin** - click on **Update** on the **Content >CmContainer** tab

(c) **From inside *12d Model***

The **Certify CodeMeter Dongle** panel can be brought up in ***12d Model*** by the option

Project =>Management =>Dongles =>Certify Codemeter



Clicking on the **Certify** button will attempt to certify the CodeMeter.

Note

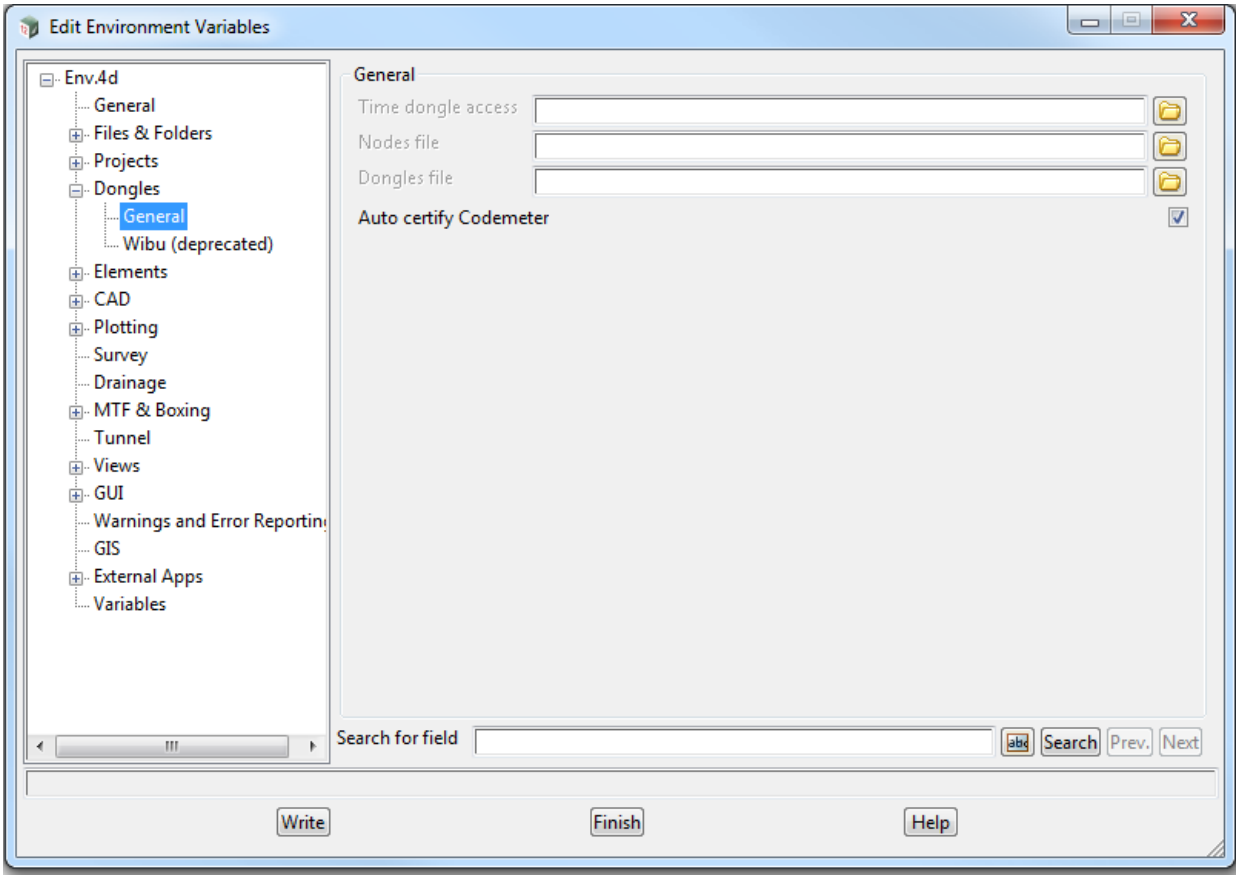
One month before the end of the two month period (the warning period), ***12d Model*** brings up the **Certify CodeMeter Dongle** panel and displays the number of days, minutes and seconds remaining until Certification is required.

5.2.2 Automatically Updating the Certified Time

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

If you set the environment variable **AUTO_CERTIFY_DONGLE_4D** is set to 1, whenever ***12d Model*** is started up, if it is in the warning period then ***12d Model*** will automatically attempt to certify the dongle. And if successful, no user intervention 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.



Note

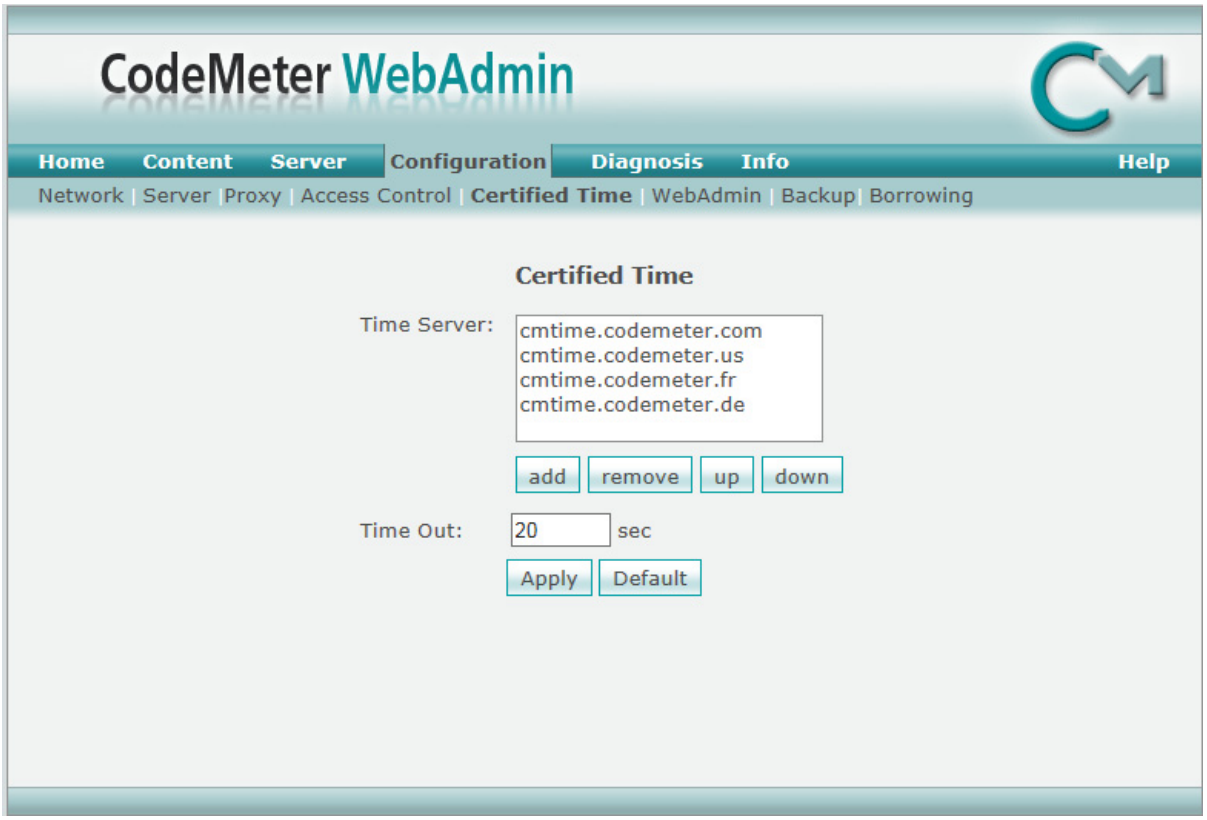
Any computer which has the environment variable AUTO_CERTIFY_DONGLE_4D set to 1 can certify the Network CodeMeter that it is using to obtain a **12d dongle**.

5.3 Time Servers for Certified Time

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

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



Timer Server:
This shows the list of the **CodeMeter Timer Servers** allowed to searching to Certify Time for the CodeMeter. 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.

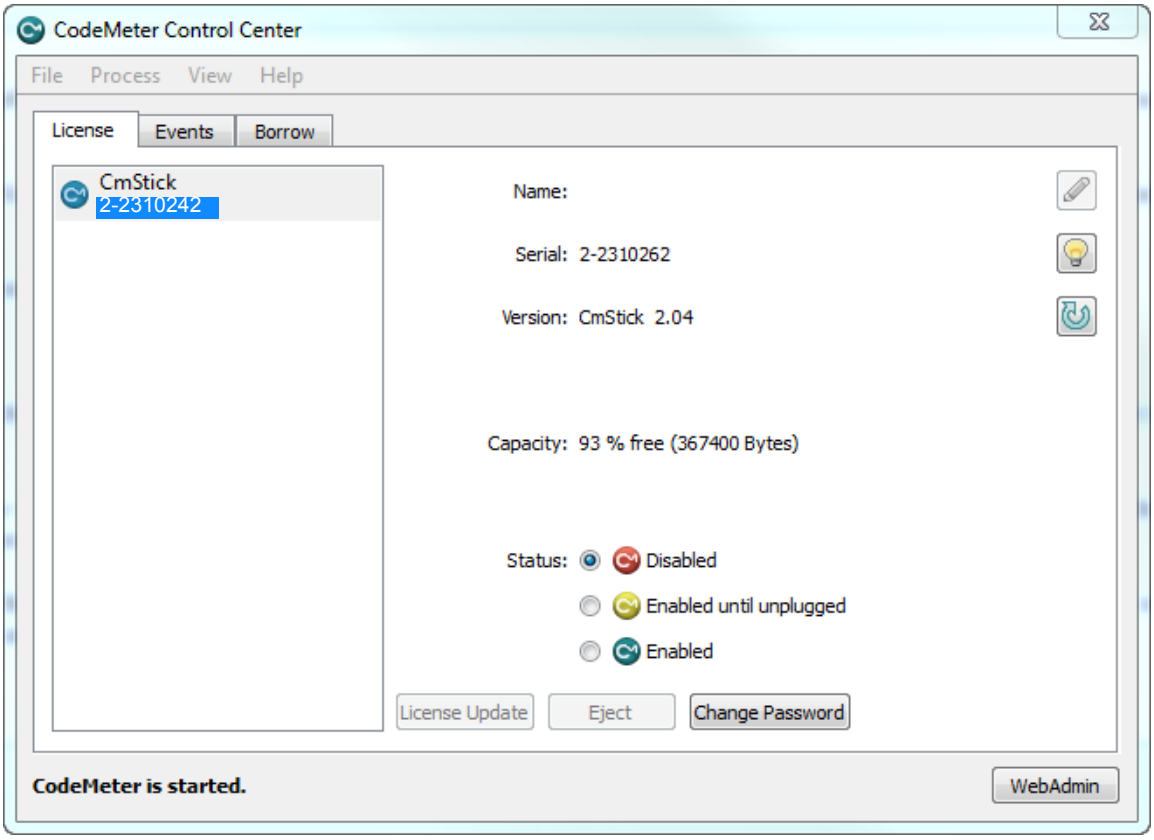
Clicking **Apply** saves theses entries in the Windows Registry of the Server that the CodeMeter is on.

6 The CodeMeter Control Centre Software

The **CodeMeter Control Centre** is used on a particular computer to display which Codemeters are on the computer, to stop and start the **CodeMeter Runtime Server** service on the computer, and to update the contents of any CodeMeters on the computer.

It can also bring up the **CodeMeter WebAdmin** panel which gives information on CodeMeters on any computer that are visible on the network. It can monitor the number of licenses being used by any of the **12d dongles** within any of the CodeMeters visible on the network.

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 6.1 Stopping & Starting the CodeMeter Runtime Server on page 42)

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 6.2 Updating Licenses in a Network CodeMeter on page 45).

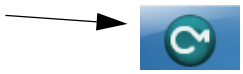
The **WebAdmin** button brings up the **CodeMeter WebAdmin** panel which can display information about ***12d Model*** licenses for **any** CodeMeter (Network or Standalone) that is visible on the computer network. See 6.2 Updating Licenses in a Network CodeMeter on page 45.

6.1 Stopping & Starting the CodeMeter Runtime Server

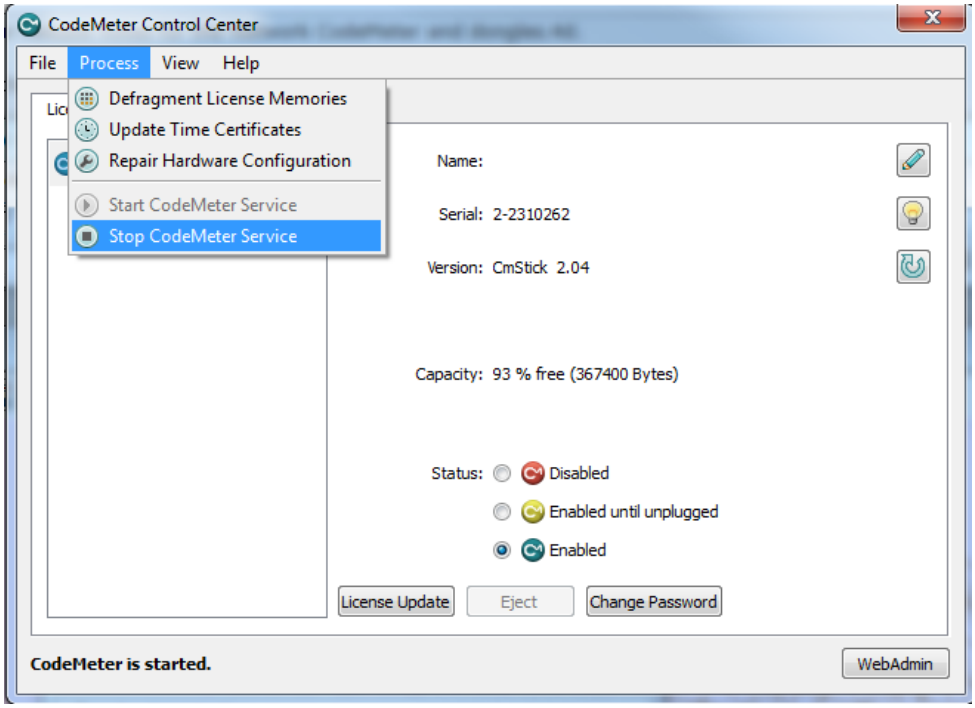
Some changes to CodeMeter configurations on a computer require that the **Codemeter Runtime Server** service is restarted on the computer. In these cases, there is usually a message to say **Changes only take effect after restarting CodeMeter**.

The stopping and starting of the CodeMeters on a computer is done from the **CodeMeter Control Centre**.

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

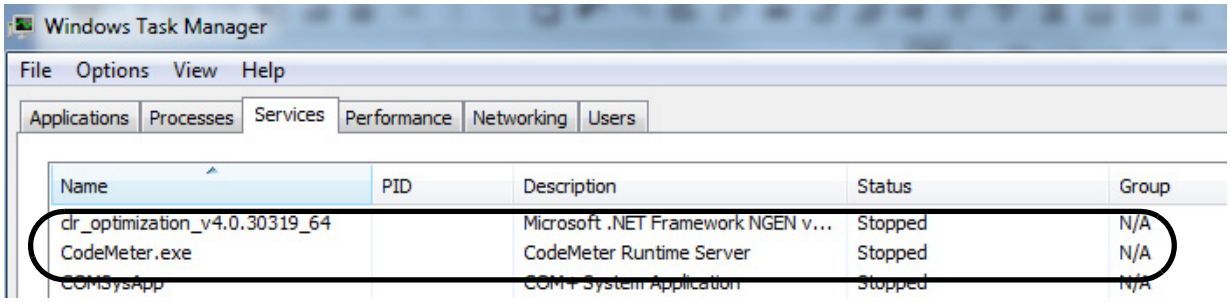


To **stop** the **CodeMeter Runtime Server** service, click on ***Process >Stop CodeMeter Service*** in the **CodeMeter Control Centre**.

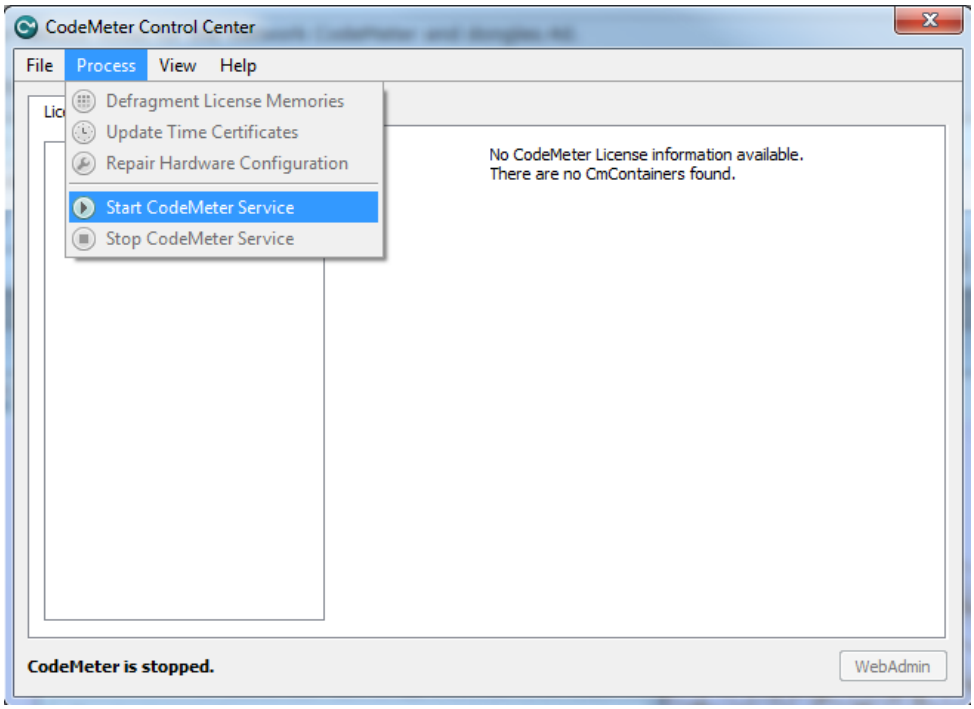


You will be asked to confirm that this is to be done.

The **CodeMeter Control Centre** 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**.

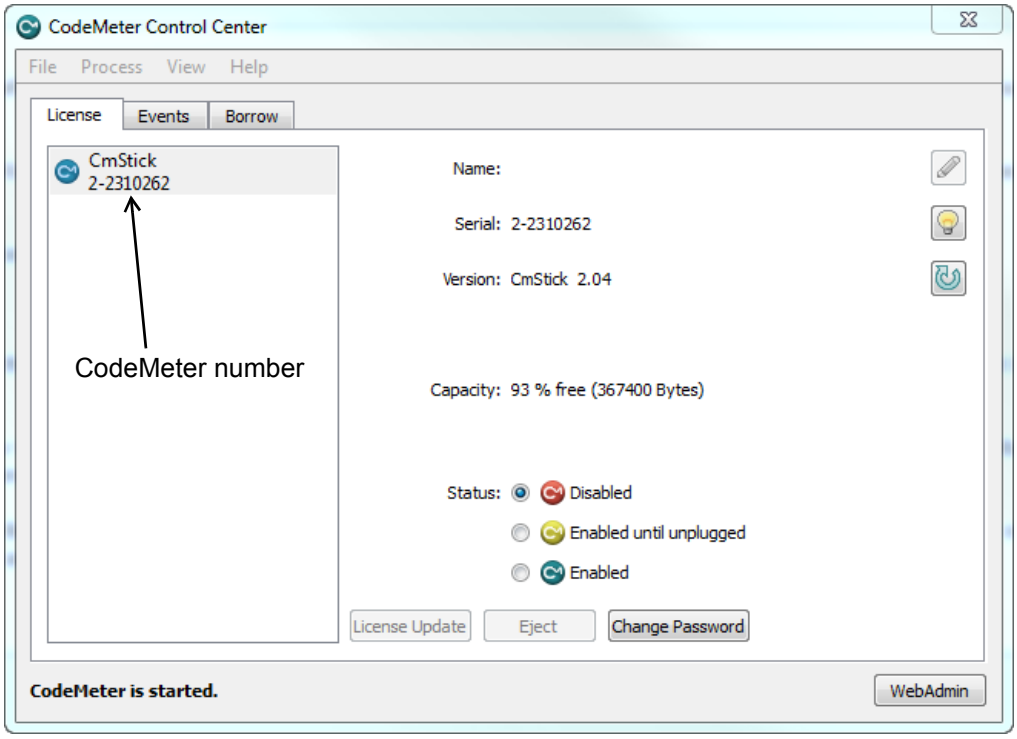


To **start** the **CodeMeter Runtime Server** service, click on ***Process >Start CodeMeter Service*** in the **CodeMeter Control Centre**.

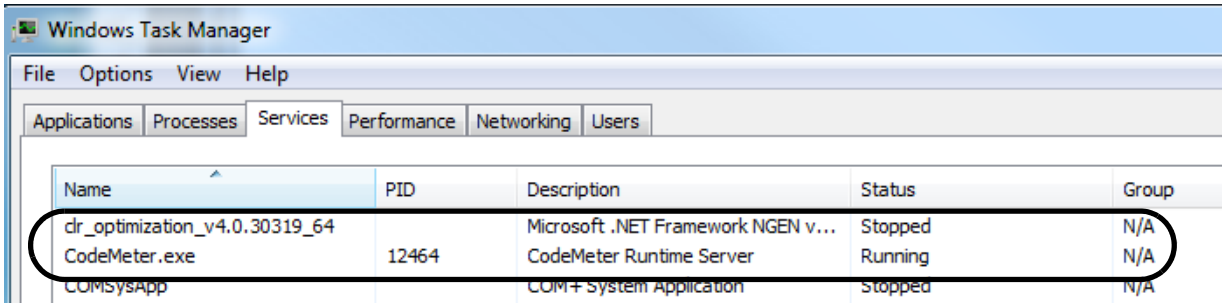


You will be again be asked to confirm that it is to be done.

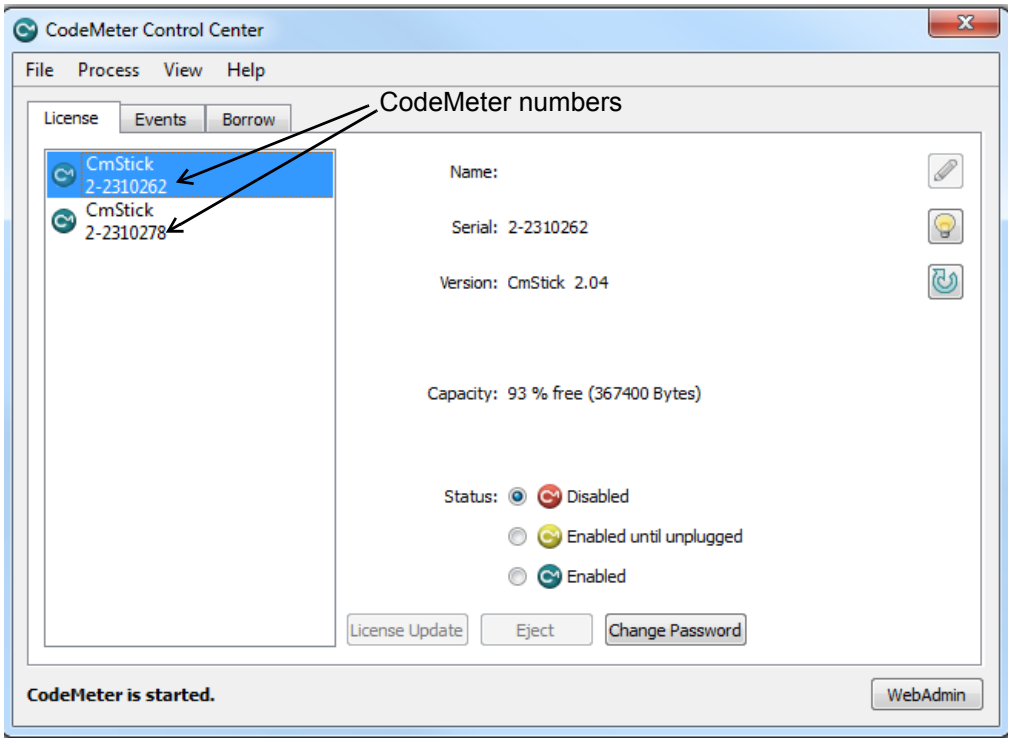
After a short time, the **CodeMeter Control Centre** panel will then reappear displaying the CodeMeters on this computer.



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.

6.2 Updating Licenses in a Network CodeMeter

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 6.3 Generating the Context File (.WibuCmRac) on page 46.

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

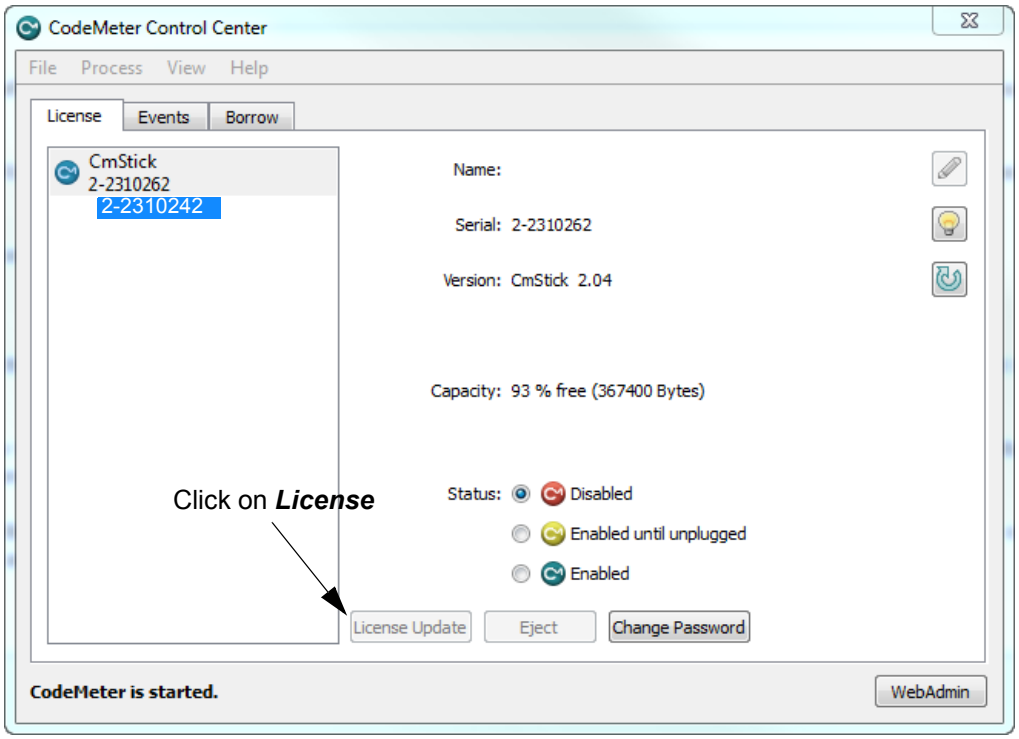
You will be emailed one or more special files (ending in .**WibuCmRaU**) which are used to update the information about the virtual **12d dongles** in the Network CodeMeter.

If you have a **WibuCmRaU** file, go to 6.3.1 Updating Using the .WibuCmRaU File on page 49.

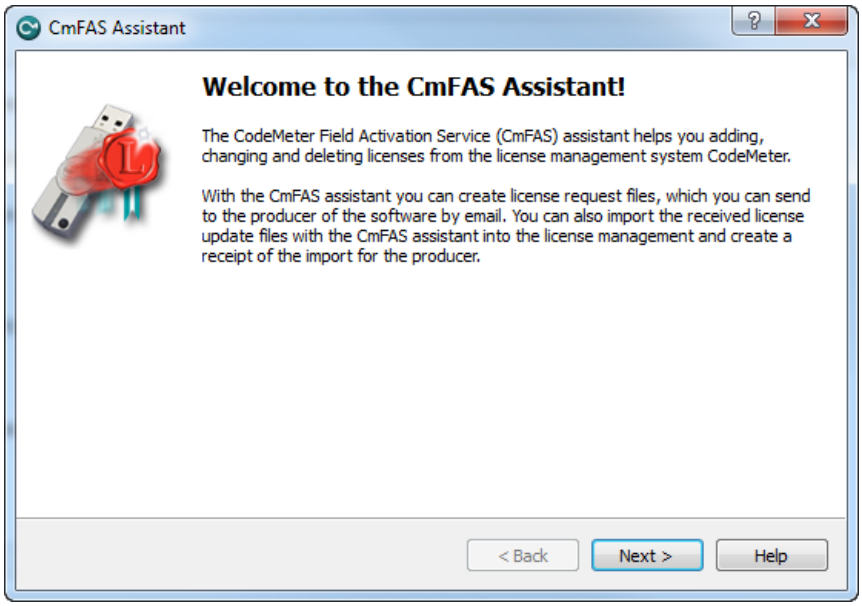
6.3 Generating the Context File (.WibuCmRac)

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

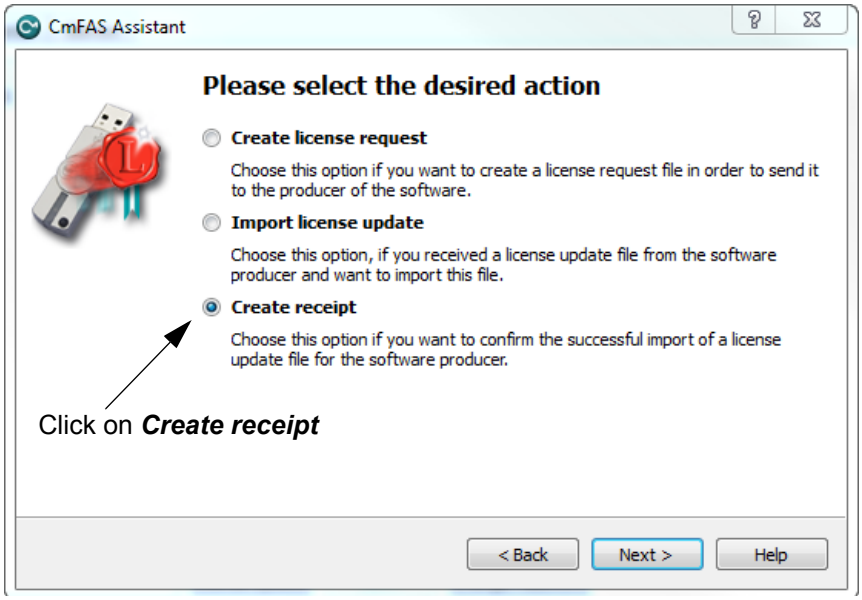
The *CodeMeter Control Center* panel is accessed by clicking on the **CodeMeter** icon that was installed on your task bar.



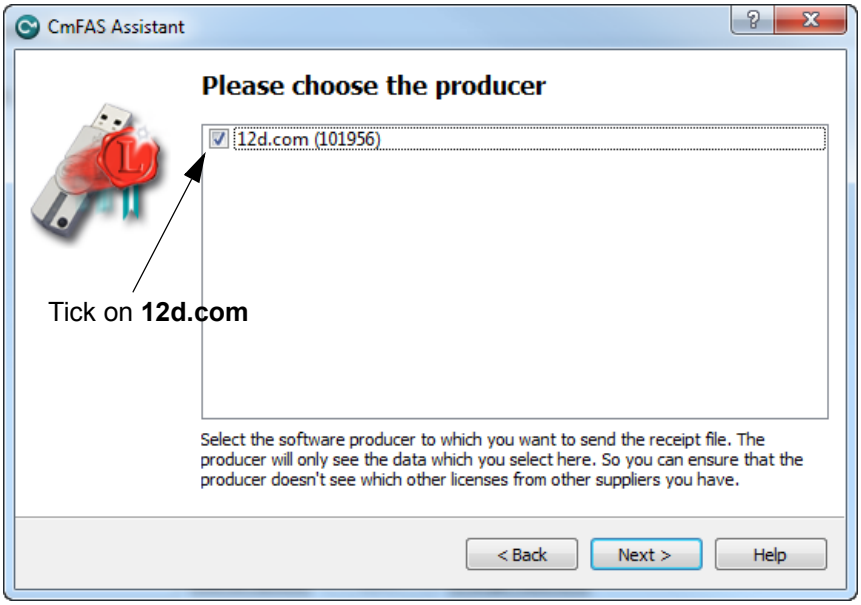
Click on **License Update** to bring up the **CmFAS Assistant** panel.



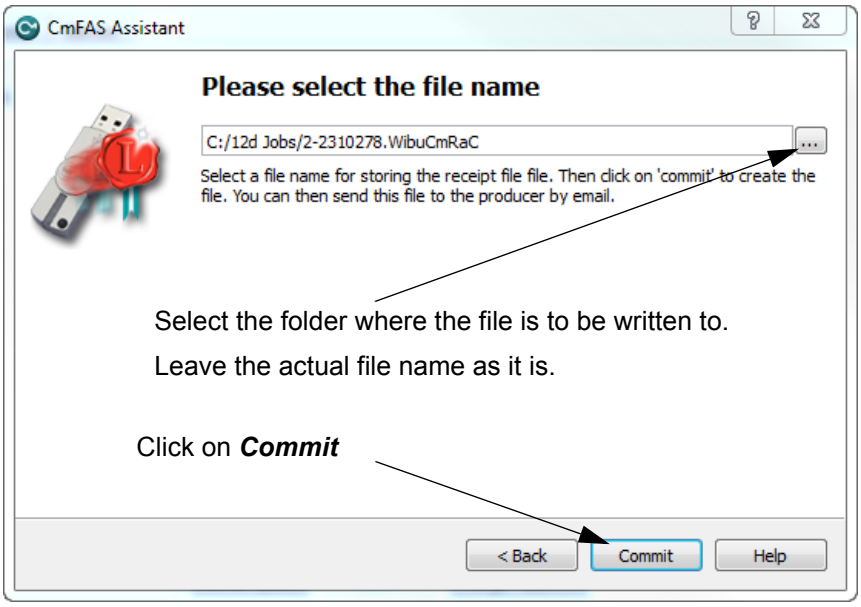
Select **Next**.



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** f file to update the CodeMeter, see 6.3.1 Updating Using the .WibuCmRaU File on page 49.

6.3.1 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.

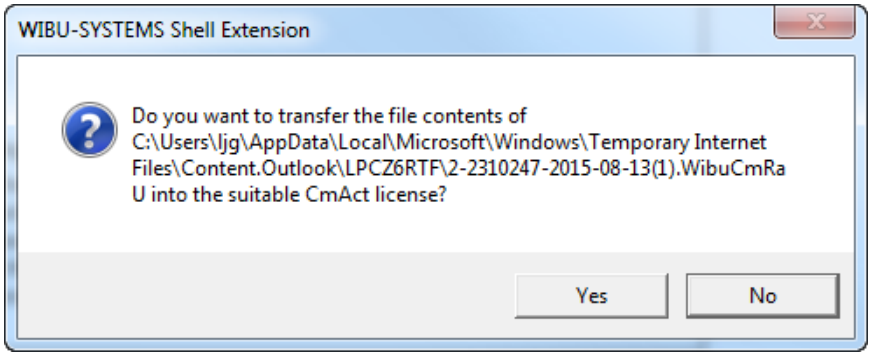
To update the CodeMeter, you will be sent a file starting with the CodeMeter number, then the date and finally ending in **.WibuCmRau.**

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

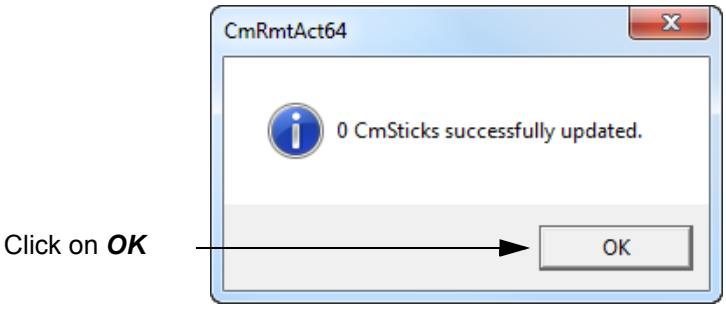
You need to have System Administrator rights to update the Network CodeMeter.

Before updating a Network CodeMeter dongle, run the **CodeMeter *WebAdmin*** software to check that no one is using the Network CodeMeter (7 Monitoring and Cancelling Licenses on page 53). 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.



Click on ***OK***

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 6.3.2 Manually Updating the Network CodeMeter on page 50.

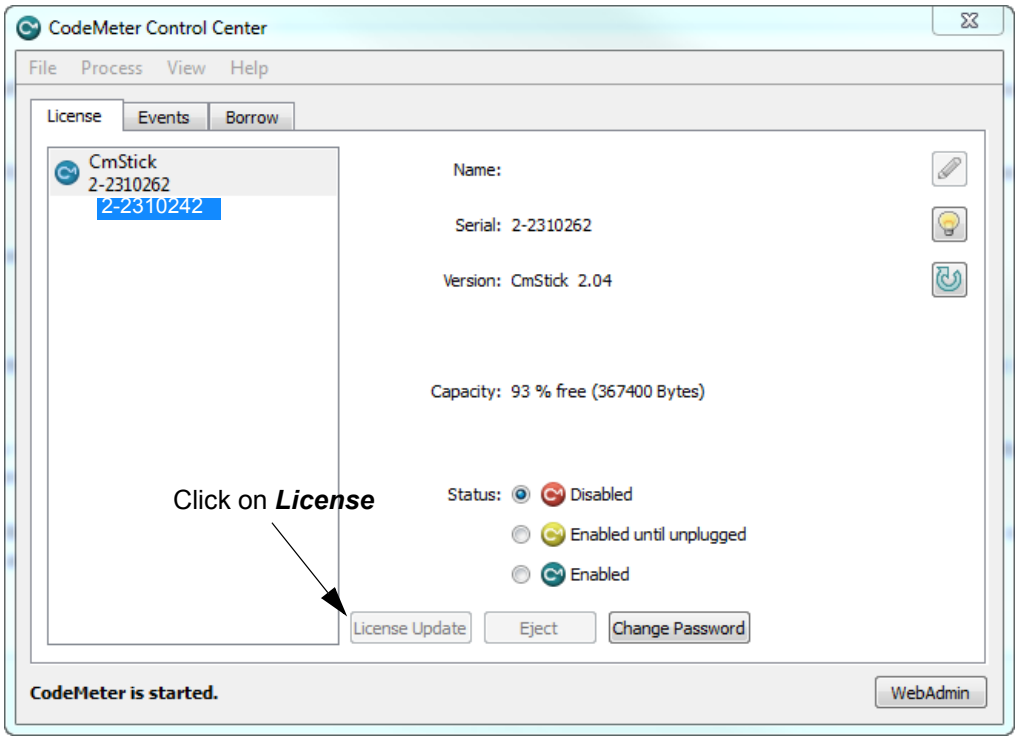
Nodes.4d:

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.

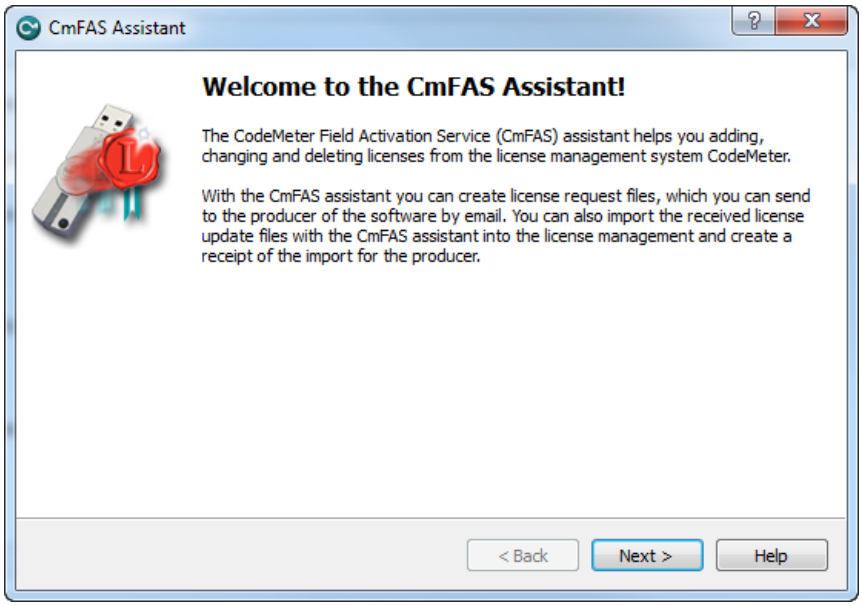
6.3.2 Manually Updating the Network CodeMeter

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.

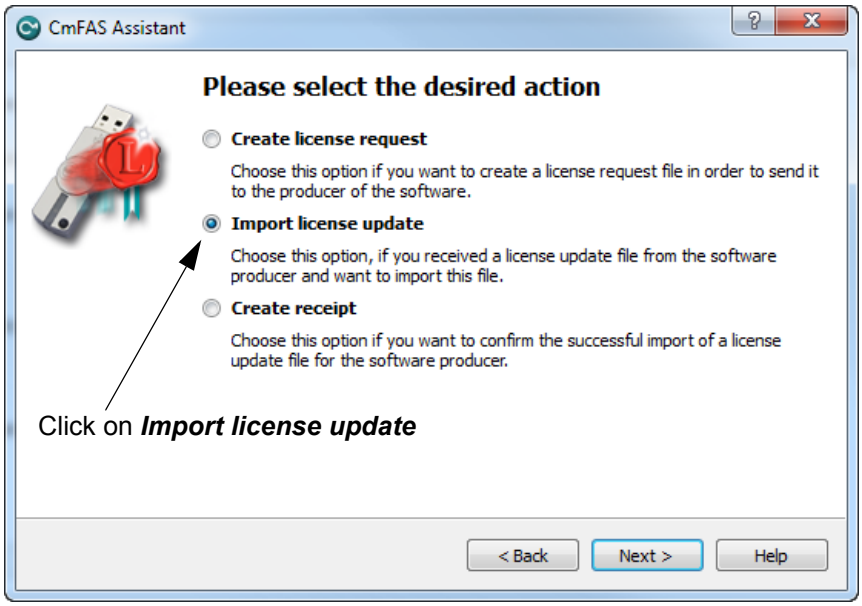
The *CodeMeter Control Center* panel is accessed by clicking on the **CodeMeter** icon that was installed on your task bar.



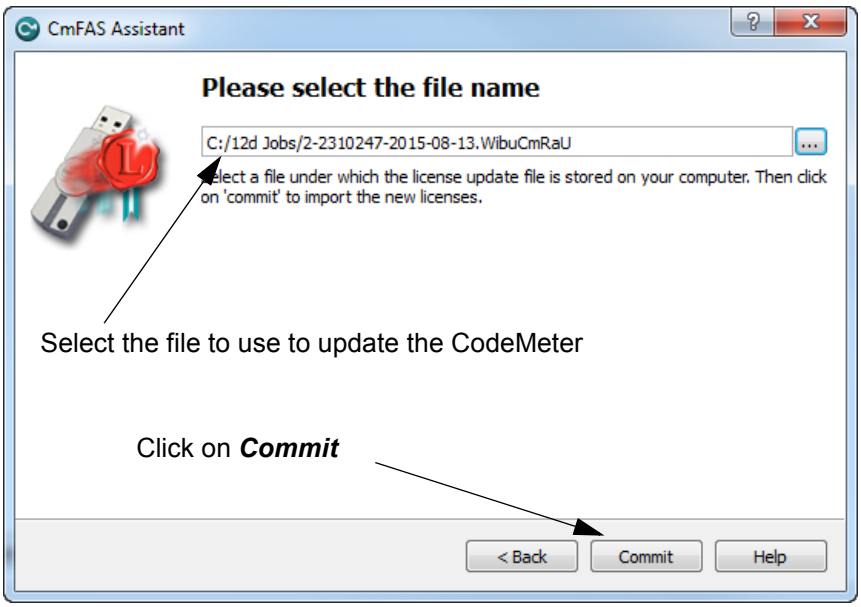
Click on **License Update** to bring up the **CmFAS Assistant** panel.



Select **Next**.



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



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

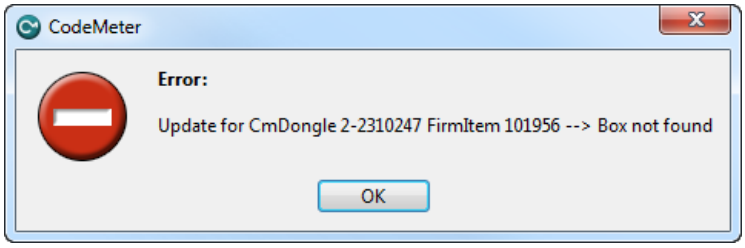
Nodes.4d:

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 6.4 Errors Updating the Network CodeMeter on page 52.

6.4 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:



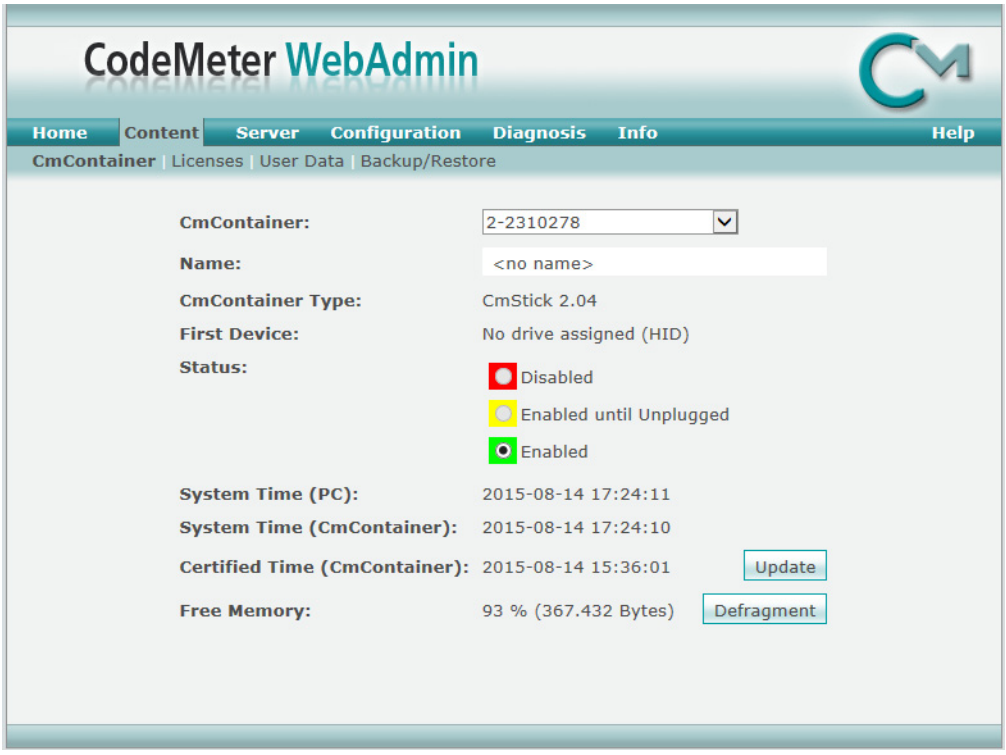
If you can't work out what your error was, email the error message to your ***12d Model Reseller***.

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***.

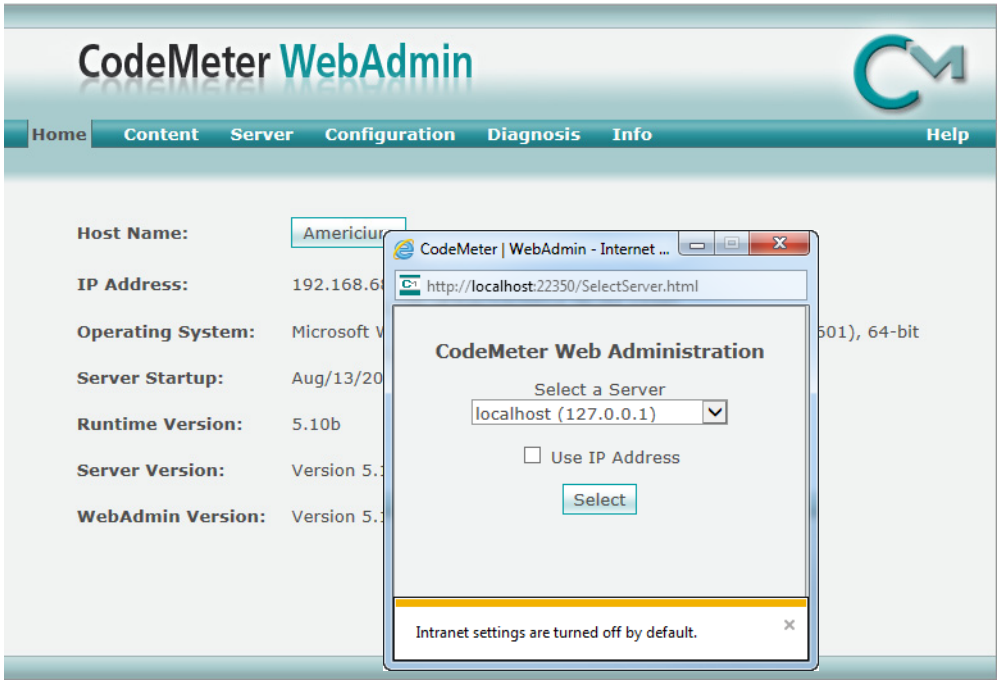
7 Monitoring and Cancelling Licenses

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.

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



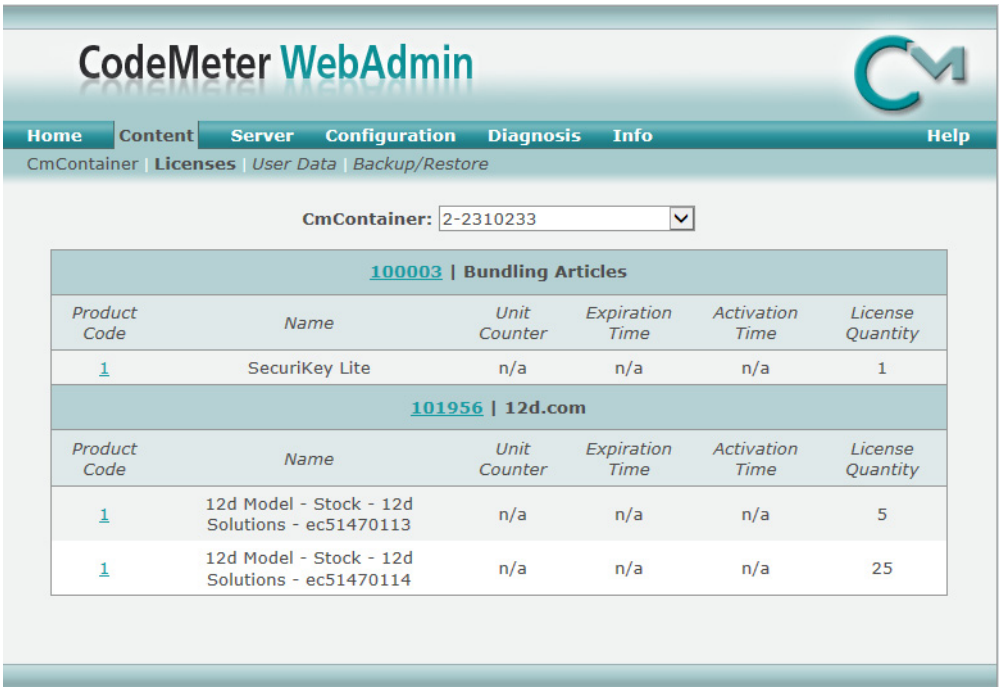
CodeMeters on other computer can be examined by clicking on the **Home** tab and then clicking on the displayed **Host Name:** to bring up the panel to select a **Server** to check for CodeMeters.



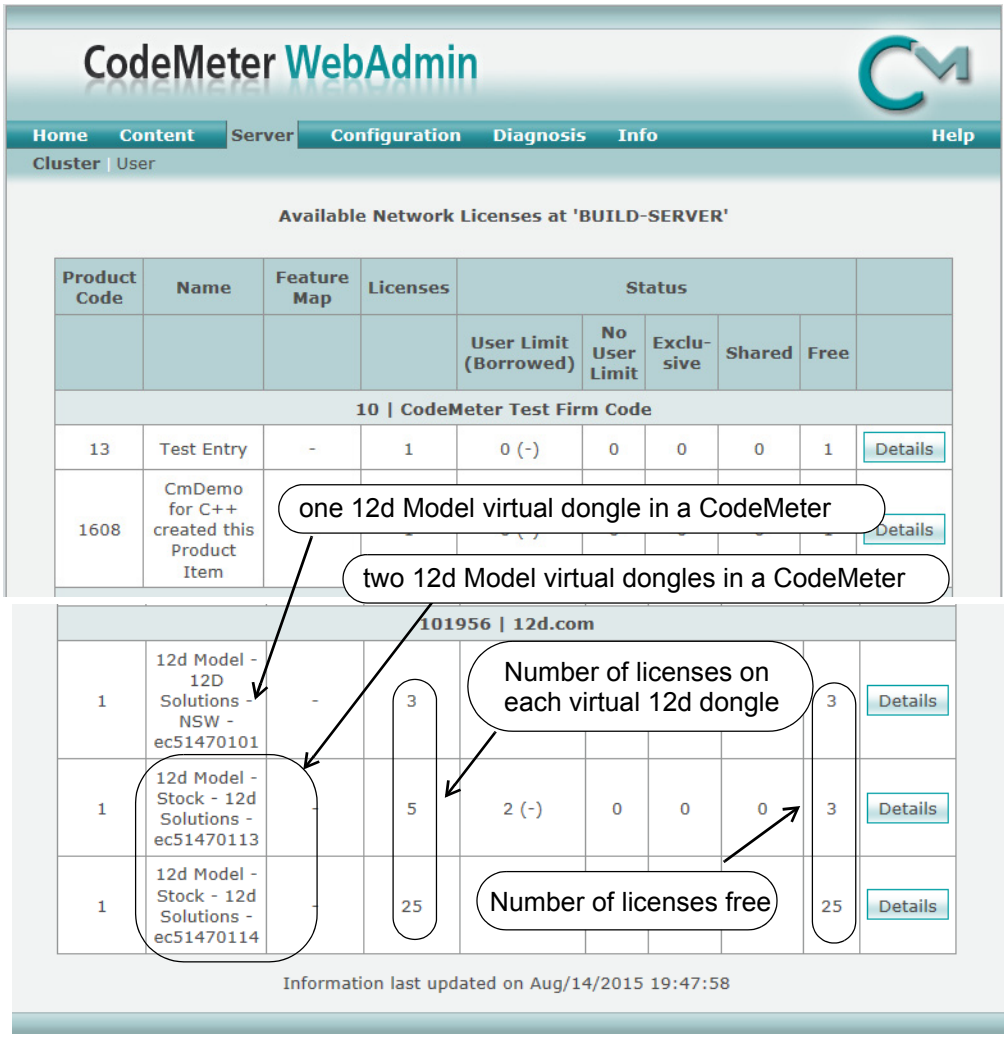
A pop up list is automatically created of all the computers that are visible on the network and have CodeMeters on them.

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.

For example, the tab **Content >Licenses** will then display information about any selected CodeMeter on the selected computer.



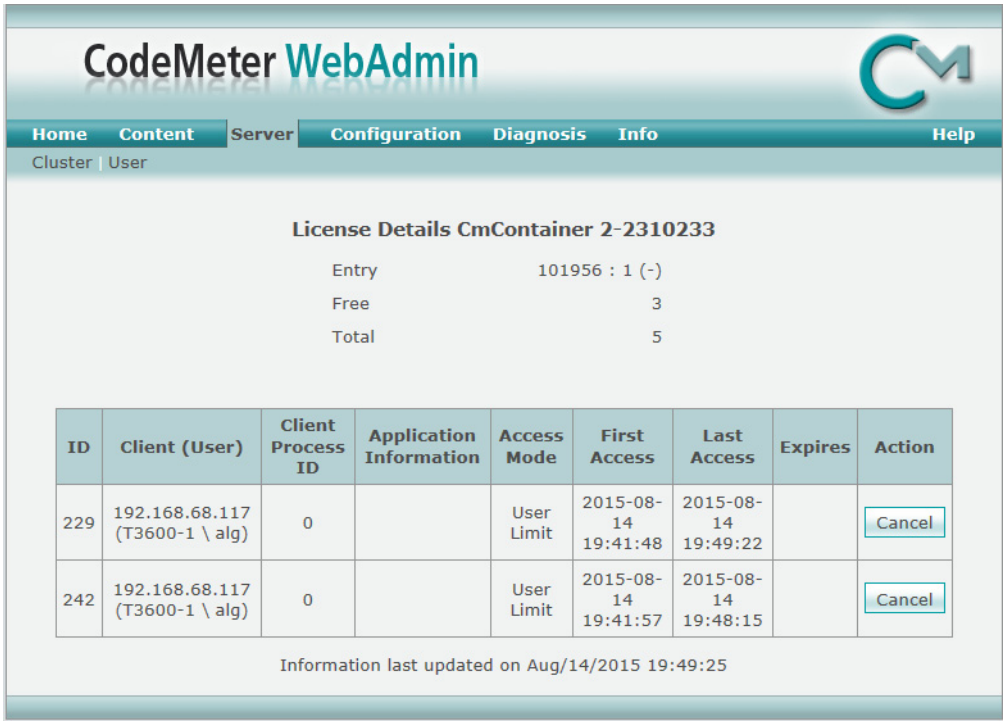
To see how many ***12d Model*** licenses are being used by each virtual **12d dongle** in all the CodeMeters on a particular Server, when that server has been selected on the **Home** tab, click on the **Server >User** tab.



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

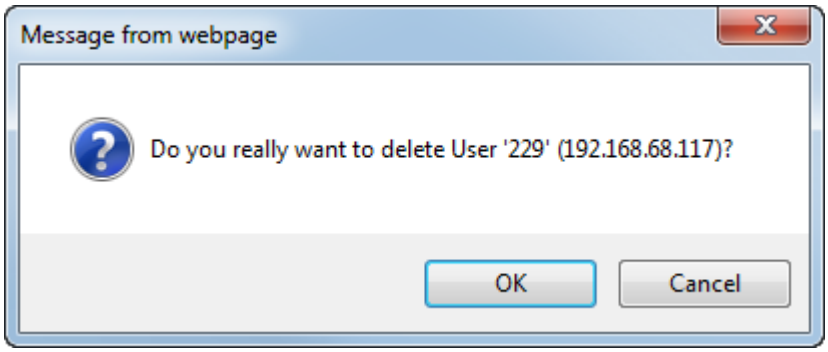
The table also displays how many ***12d Model licenses*** are on each **12d dongles,** and how many of those licenses are still **Free** to be used.

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**.



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

WebAdmin CodeMeter
Home
Content
Server
Configuration
Diagnosis
Info
Help
HTTP ERROR 403
The access to the CodeMeter Server was not permitted.

8 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 (7 Monitoring and Cancelling Licenses on page 53).

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.

9 Port Address for Communication

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.

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

After that you need to stop and then restart the **Codemeter Runtime Server** service. See 6.1 Stopping & Starting the CodeMeter Runtime Server on page 42.