spin digital

Spin Digital License Setup Guide
Version 0.1

spin player

spin enc

spin sdk

Document Information

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Contents

1 Overview

Spin Digital offers flexible license deployment modes and licensing models in order to support multiple use cases by our end users and customers. It is important to understand the main concepts behind licensing, before looking at the operational details.

- Legal license (or software license): is a document defining the legal terms governing the use of the software.
- License: Is a piece of information (stored in a file or hardware device) that grants, in practice, the use of the software as defined in the software license.
- License deployment mode: Defines how the licenses are delivered to the end users and how they are activated. Examples include: standalone with USB dongle, standalone with license file, network, leased, and cloud connected.
- Licensing model: Defines how the software will be used by the final user. Examples include: perpetual license, time-restricted evaluation license, and subscription license.

1.1 Licensing Models

Spin Digital products can be licensed using four different licensing models:

Perpetual license: A non-expiring license that allows the end customer to run the software indefinitely. Usually provided with a standalone deployment mode.

Evaluation license: It is a temporary license that allows end users to test the software before actually buying it. It can include restrictions compared to the full commercial license such as time restrictions and on-screen logos. An evaluation license can be converted to a perpetual license after buying the software license. It can be deployed with a standalone, leased or connected modes.

Subscription: It enables the use of the software for a specific period of time (e.g. a month or a year). It is deployed usually with leased or cloud connected modes.

Usage-based: It is a form of license where the end user is billed for the actual use of the software as measured with a predefined metric. It is usually deployed with cloud connected mode.

1.2 Licensing Deployment Modes

As mentioned before, a license deployment mode defines how the license is delivered to the end customer. Spin Digital products support four licensing deployment modes:

Standalone Licensing: The license resides on the same system where the application runs. It is included with the application or in an external hardware device such as an USB dongle.

Network Licensing: Also known as floating license. The license resides in a license server, and the application running on the end-user system connects to the license server for obtaining the license. Usually a limit is defined on the maximum number of end-users that can run at the same time. The server and end-user systems are located in the same LAN network and the license server is operated by the end customer.

Cloud-Connected Licensing: The license resides in a cloud server operated by the licensor, and the end-user application connects over the Internet to obtain the license. The end-user system requires permanent Internet connection to be able to run the application using the remote license.

License Leasing: It is a mixture of standalone and cloud-connected modes. The license resides on the end-user system, and it works as a standalone license. The license is renewed periodically by connecting to a cloud license server in order to obtain a new lease that allows the license to continue running for a fixed time.

1.3 License Deployment Tools

In order to support multiple licensing models and license deployment modes Spin Digital uses different license deployment tools, including: CodeMeter from Wibu-Systems [1] and the Sentinel Rights Management System (RMS) from Thales Group [2].

By combining the two tools, five different deployment models are available:

CodeMeter Dongle (CmDongle): Hardware-based standalone license. All the licenses are stored in a USB dongle, so it can be easily transferred from one system to another. It also provides the highest level of security. It can also provide network licenses.

CodeMeter ActLicense (CmActLicense): Software-based standalone license. The license is bound to an individual target system. It can be used in an isolated (non-network) environment. It can also provide network licenses.

Sentinel RMS Standalone On-premises license: Software-based standalone license. The license is bound to an individual target system. It can be used in an isolated (non-network) environment. It can also provide network licenses.

Sentinel RMS lease license: Lease license. A combination of standalone and cloud license. The license is provided by a cloud server to the end application in a leased manner. The license is updated and checked periodically. It can also provide network licenses.

Sentinel cloud-connected license (SCL): Cloud-Connected License. Cloud license that is served from the Sentinel cloud license server. Licenses are delivered and accessed directly from the cloud server. Permanent internet connection is required.

Table 1 summarizes the current status of the supported licensing modes for each license variant.

[1] Wibu Systems - CodeMeter `https://www.wibu.com/products/codemeter.html`

[2] Thales Group - Sentinel RMS `https://cpl.thalesgroup.com/software-monetization/rights-management-system-rms`

License	Standalone	Network	Lease	Cloud
CodeMeter Dongle	✓	✓	✗	✗
COdeMeter ActLicense	✓	✓	✗	✗
Sentinel RMS on-premises	✓	Not supported yet	✗	✗
Sentinel RMS lease	✓	Not supported yet	✓	✗
Sentinel Cloud Connect	✗	✗	✗	✓

Table 1: Licensing tools used for different licensing deployment modes.

Note:
The Spin Digital SDK supports all the license models, while the other Spin Digital software may only support some of them.
Depending on which license deployment mode you choose, you will receive the Spin Digital software package accordingly.

1.4 Licensing Use Cases

By combining the license deployment modes and tools and the licensing models described above, it is possible to enable multiple use cases for running Spin Digital software. The following table presents six common use cases and how they can be implemented using the mentioned license deployment modes and licensing models.

Use Cases	Licensing models	Deployment modes
Single user - local	Perpetual Evaluation Subscription	CM Dongle CM ActLicense Sentinel Standalone On-premises
Multiple users - network	Perpetual Evaluation Subscription	CM Dongle CM ActLicense Sentinel Network On-premises
Volume license	Perpetual Subscription	Sentinel Standalone On-premises Sentinel Standalone Lease
Test license - low volume	Evaluation	CodeMeter Dongle CodeMeter ActLicense Sentinel Standalone On-Premises Sentinel Cloud Connect
Test license - high volume	Evaluation	Sentinel Standalone Lease Sentinel Cloud Connect
Cloud service	Cloud connected	Sentinel Cloud Connect

Table 2: Use cases enabled by different licensing models and license deployment modes.

1.5 License Configuration File

A license configuration file "licenseconfig.txt" is provided together with the Spin Digital applications. This file is used by the applications to know from where and how to obtain a valid license. The file should be placed in the same folder as the Spin Digital application.

The default license configuration specified in "licenseconfig.txt" should be sufficient for most of the use cases with simple license setups, for example, using only a single standalone license. For a more complex license configuration, such as systems with multiple installed licenses, the license configuration file might need to be modified according to the specific demands.

Although it is possible to manually change the license configuration file, we recommend to use the Spin Digital license tool *spinlicensetool* provided with the Spin Digital software package to generate the license configuration file automatically.

There are three different variants of the *spinlicensetool*, one for each main license deployment tool:

- `spinlicensetool_cm` for the CodeMeter licenses, e.g. CmDongle.
- `spinlicensetool_rms` for the Sentinel RMS licenses, e.g. RMS Lease License.
- `spinlicensetool_scl` for the Sentinel Cloud Connected licenses.

The command-line tool takes various configuration options, e.g. the preferred license server or user credentials. The available options depend on the used licensing type and use case. With the correct options, the tool creates a "licenseconfig.txt" file.

For more details of how to use *spinlicensetool* for an advanced license configuration, please see the section about the *spinlicensetool* for each license variant.

2

Wibu CodeMeter License

The Wibu CodeMeter licenses are stored in the license container called CmContainer, which can be either a CodeMeter USB dongle (CMDongle) or a software-based license (CmActLicense). With the CMDongle, you will usually receive a pre-programmed CodeMeter USB dongle that is ready to use. With the CmActLicense, you will need to install the license by importing a license container file and upgrade the license before using it.

By default, the CmDongle and CmActLicense support standalone licensing, with which the license can be accessed by the licensed software installed in the same system. If the network licensing feature is enabled on the license, then the license can be used as a network license, which can be accessed by the licensed applications running in the same local network environment. The details of the network license setup is described in Section 2.3

The update of the CodeMeter license is done with a file-based license transfer. The procedure of the license update is described in Section 2.2.

Before using the license, the CodeMeter runtime must be installed on the system first. The CodeMeter runtime includes the following components:

- **CodeMeter runtime service:** it is always needed to access the license or perform any license operations.
- **CodeMeter WebAdmin:** it can be used to check the license information or configure the CodeMeter runtime service.
- **CodeMeter Control Center:** graphic user interface for controlling the CodeMeter service and licenses.
- **CodeMeter Universal Support Tool:** command-line tools that can be used to check the license information, *cmu* on linux, *cmu[32].exe* on Windows

The installer of the CodeMeter runtime is always delivered along with the Spin Digital software. It is usually located in the "*runtimes*" folder of the software package. You can also download the latest version from the Wibu website [3].

- For Windows, double-clicking the installer executable (CodeMeterRuntime.exe) and following the instructions provided by the installer will install the CodeMeter runtime and enable the CodeMeter runtime service automatically after the installation is completed.
- For the debian-based Linux, use the deb package (codemeter_x.xx.xxxx.xxx_amd64.deb) for the CodeMeter runtime installation. You can install it with the command:
  `sudo dpkg -i codemeter_x.xx.xxxx.xxx_amd64.deb`
- For the Red Hat-based Linux, use the rpm package (CodeMeter-x.xx.xxxx-xx.x86_64.rpm) for the CodeMeter runtime installation. You can install it with the command:

[3] Wibu CodeMeter runtime `https://www.wibu.com/support/user/user-software.html`

```
sudo rpm -i CodeMeter-x.xx.xxxx-xx.x86_64.rpm
```

After successfully installing the CodeMeter runtime, the CodeMeter service will start automatically.

2.1 Install License

The standalone license has to be installed on the system where the licensed application is installed, while the network license must be installed on the system that will be used as a license server.

2.1.1 Install CMDongle

Installing the CmDongle license is quite straightforward. You only need to connect the CodeMeter dongle to the USB port of the system where the license should be installed.

Usually, the CmDongle you receive from Spin Digital has already been pre-programmed with the license you requested. It is ready to be used with the Spin Digital software as a local license. To use it as a network license, a network license setup is required. The details about the network license setup are explained in Section 2.3.

2.1.2 Install CmActLicense

In the case of the CmActLicense, a license information file (*.WibuCmLIF) is required. You can get this file from Spin Digital. This license information file corresponds to an empty license container. It serves to collect the hardware properties of your PC as a kind of 'fingerprint' for the subsequent activation.

You need to first import the license information file into the CodeMeter runtime service to install an empty CmActLicense container, then do a license update for this CmActLicense container to add the actual licenses.

You can proceed as follows to install a CmActLicense container :

- Import the CmActLicense with CodeMeter Control Center
  1. Open the *CodeMeter Control Center*
  2. Drag and drop the *.WibuCmLIF file, e.g. SpinDigitalActLicense.WibuCmLIF, you received from Spin Digital onto the *CodeMeter Control Center*. Alternatively, the license information file can also be imported via the *File — Import license* and the license is displayed in *CodeMeter Control Center*.
  3. After import the license information file, you will see a new license listed on the CodeMeter Control Center similar as it is shown in Figure 1. Please note that the serial number of the empty CmActLicense container is required later for a license update. For example, the serial number of the CmActLicense shown in the Figure 1 is 130-3347409229.

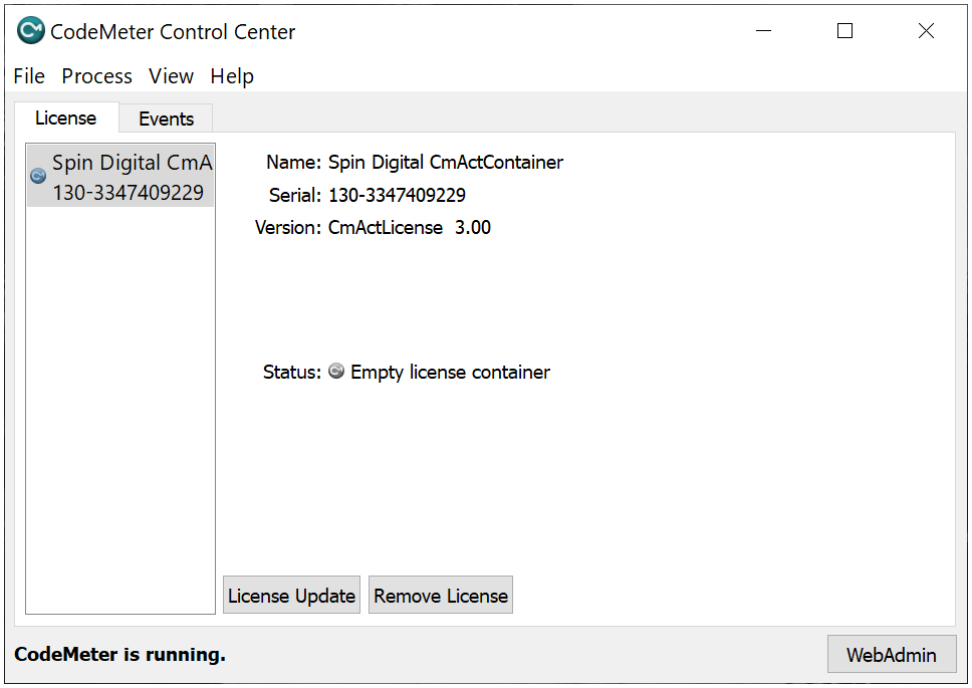


Figure 1: Example of importing an empty CmActLicense container

- Import the CmActLicense with cmu tool
  Alternatively, the activation of CmActLicsense can also be performed with the *cmu[32]* tool. This tool is installed along with CodeMeter runtime.
  1. Import the licenses information file to the system with the command as follow:
     `cmu[32] -i --file ./SpinDigitalActLicense.WibuCmLIF`
  2. After imported the license information file, you can list all the available CmContainers with command:
     `cmu[32] -l`
     The output of this command is similar to the result shown in Figure 2. Please note that the serial number of the empty CmActLicense container is required later for a license update. For example, the serial number of the CmActLicense shown in the Figure 2 is 130-3347409229.

```
cmu32.exe - CodeMeter Universal Support Tool.
Version 6.81 of 2019-Apr-02 (Build 3477) for Win32
Copyright (C) 2007-2019 by WIBU-SYSTEMS AG. All rights reserved.

List all locally connected CmContainers:
- CmContainer with Serial Number 130-3347409229 and version 3.00
Result: 1 CmContainer(s) listed.
```

Figure 2: Result of listing the CodeMeter license containers.

So far, an empty CmActLicense container has been installed. However, it doesn't contain any license yet. A license update is required to add the license information to this ActLicense container. Please continue with Section 2.2 to update the license with required features.

2.1.3 Check the installed license

After installing the CodeMeter license (connecting a CMDongle, or importing a CmActLicense), you may want to check the license information. Especially the information about the CmContainer's serial number is important for a license update. The CMDongle's serial number is in the form of "3-xxxxxxx", e.g. 3-3897974, while the serial number of CmActLicense is in the form of "130-xxxxxxxxx", e.g. 130-3347409229.

You can find the information about the installed licenses in several ways:

- **Using the CodeMeter Control Center**
  Open the CodeMeter Control Center. On the "license" tab on the left side of the panel, you can find a license of available CodeMeter container with its serial number. Figure 3 shows the connected CmContainers listed on the CodeMeter Control Center.

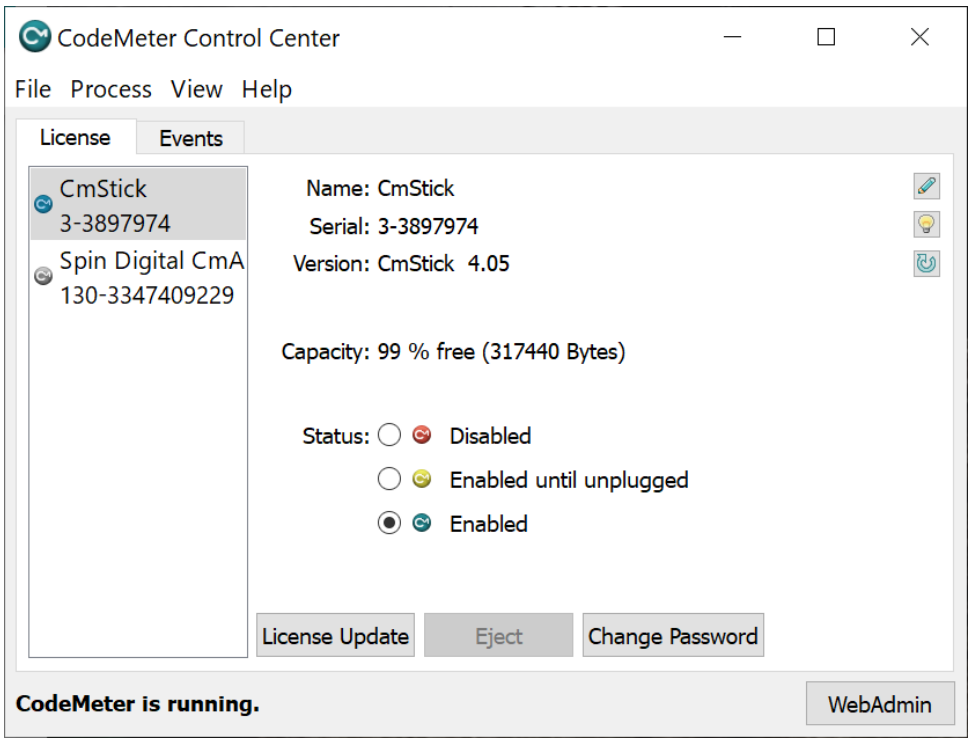


Figure 3: Check CmContainer information using CodeMeter Control Center.

- **Using the CodeMeter WebAdmin**

1. On the right bottom of the CodeMeter Control Center, there is a "WebAdmin" button, clicking it will open the CodeMeter WebAdmin in the web browser. Alternatively, you can open the CodeMeter WebAdmin directly in a web browser with URL http://localhost:22352/.

2. On the CodeMeter WebAdmin, using the navigation item "*Container*" finds information on connected CmContainer. Figure 4 shows an example of the connected CmContainers listed in CodeMeter WebAdmin.
3. If the CmContainer already holds the Spin Digital license, expanding the "Licenses" area

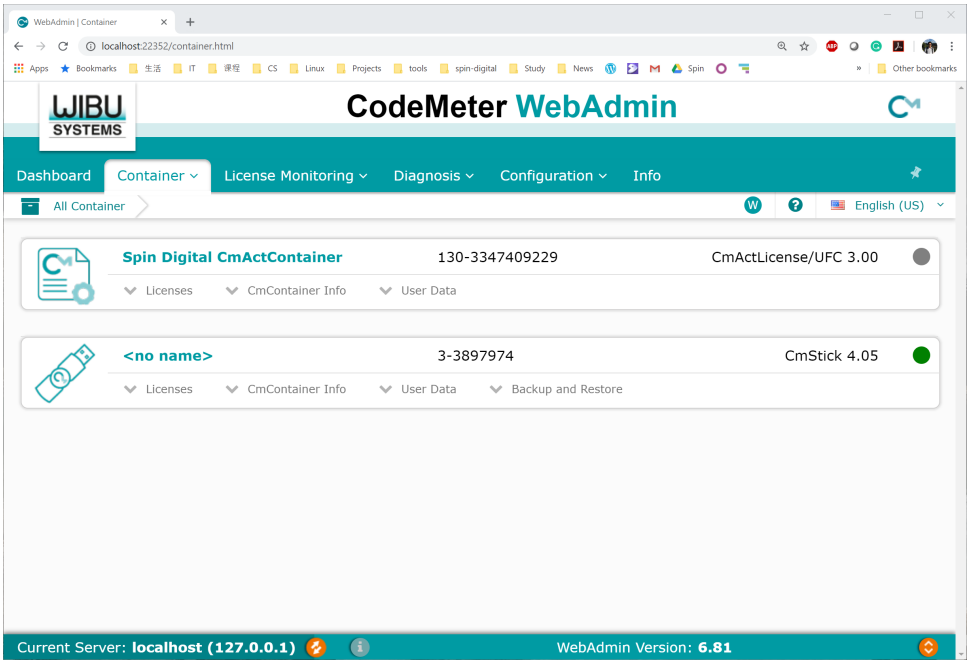


Figure 4: Check CmContainer information using CodeMeter WebAdmin.

will show the Spin Digital firm code **102865** or **6000362**. The CmContainer usually holds a Spin Digital license with code **6000362**. For the CmDongle delivered by Spin Digital before Sep. 2017, it contains the the license code **102865**. Click the Spin Digital license code, e.g., 6000362, the details of the license information, such as product codes, license quantity, license expiration date, and license feature, will be displayed in the expanding area. An example of the Spin Digital license information is shown in Figure 5.

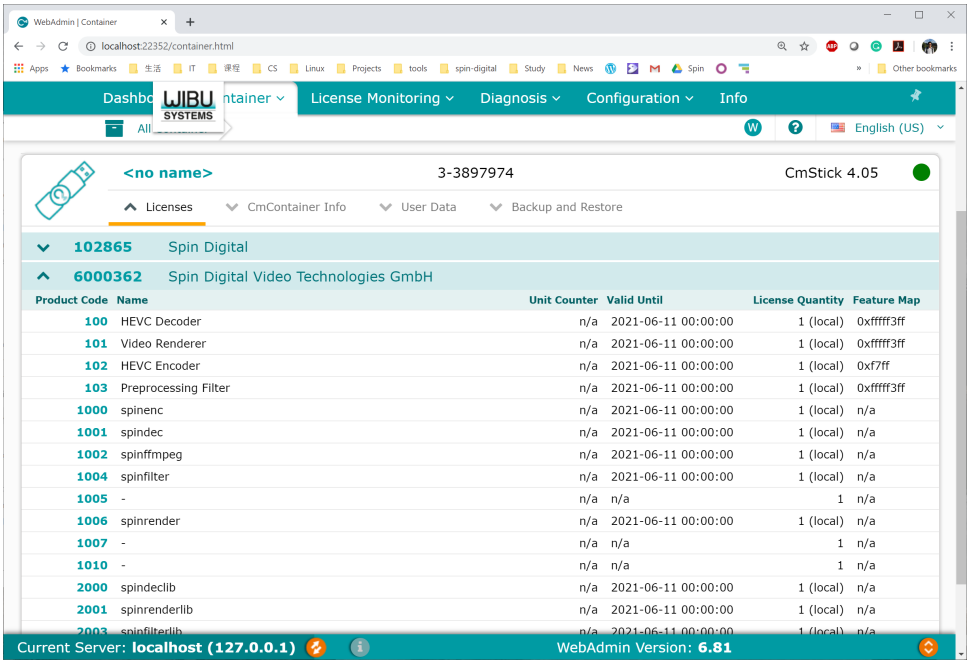


Figure 5: Check Spin Digital License code information using CodeMeter WebAdmin.

- **Using the command-line tool cmu**

  1. Open a console in Linux or the Command Prompt in Windows, enter the command:
     `cmu[32] --list`
     It will show a list of the locally connected CmContainers in the console or Command Prompt. The output is similar to it is shown in Figure 6

```
[redacted] › cmu32  --list
cmu32.exe - CodeMeter Universal Support Tool.
Version 6.81 of 2019-Apr-02 (Build 3477) for Win32
Copyright (C) 2007-2019 by WIBU-SYSTEMS AG. All rights reserved.

List all locally connected CmContainers:
- CmContainer with Serial Number 3-3897974 and version 4.05
- CmContainer with Serial Number 130-3347409229 and version 3.00
Result: 2 CmContainer(s) listed.
```

Figure 6: Check CmContainer information using cmu tool.

  2. To check more details of the license information in a CmContainer, use the command:
     `cmu[32] -x --serial $serial_number`
     e.g. `cmu[32] -x --serial 3-3897974` for the CmContainer with serial number 3-3897974.

2.2 Update License

A license update is required in the following cases:

- Add license for a new product
- Add new features for an existing product
- Extend the trial license's expiration date
- Extend the license's maintenance period
- Change a trial license to a commercial license
- Renew a subscription license

The general workflow for a license update includes the following steps:

1. You need to create a license request file (*.WibuCmRaC) for the CmContainer (can be a CmDongle or CmActLicense) you want to update and send this license request file to Spin Digital licensing team licensing@spin-digital.odoo.com.
2. Spin Digital licensing team will send you back a license update file (*.WibuCmRaU) that contains the updated licenses.
3. After you receive the license update file, importing the license update file upgrading the licenses int for associated CmContainer.

2.2.1 Create license request file

Creating a license request file for a CmDongle is a bit different from that for a CmActLicense. However, both can be done by either using the *CodeMeter Control Center* or the*CodeMeter Universal Support Tool*.

2.2.1.1 Create license request for CmActLicense

To update the CmActLicense with the CodeMeter Control Center, you can do the following steps:

1. Open the *CodeMeter Control Center* and select the CmActLicense that needs to be updated. See Figure 7.

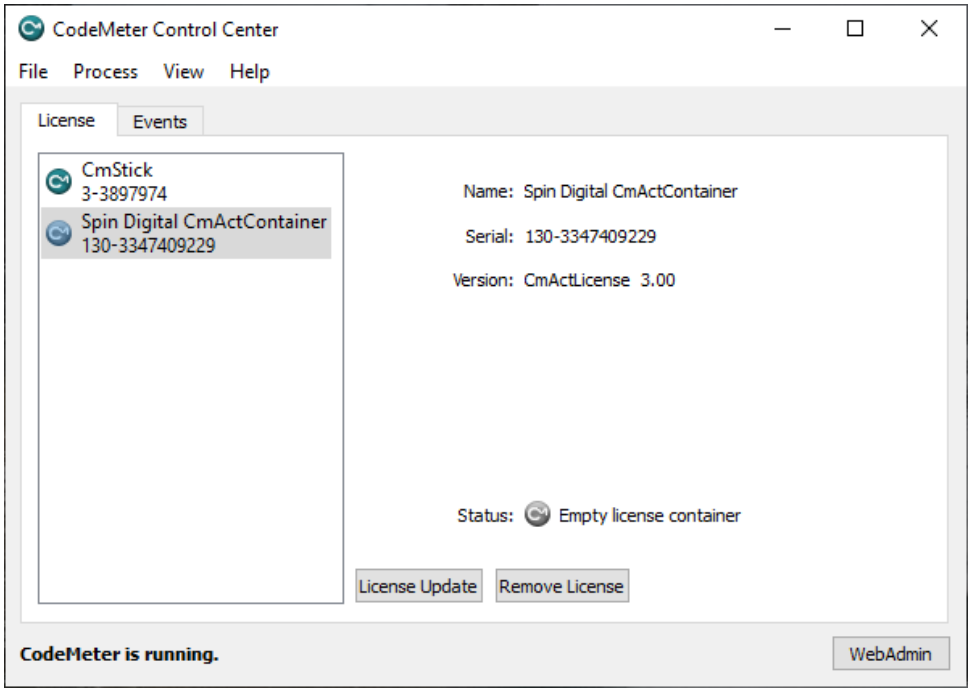


Figure 7: *CodeMeter Control Center* - select CmActLicense

2. Click on the "*License Update*" button to open the welcome dialog of the *CodeMeter Field Activation Service (CmFAS) assistant*. Then click the "*Next*" button. See Figure 8.
3. Select the "*Create license request*" option on the new page of the CmFAS Assistant and click the "*Next*" button. See Figure 9.
4. Choose a location to store the file request file and click "*Commit*". See Figure 10.
5. A license request file will be created, then click on "*Finish*" to close the CmFAS window. See Figure 11.
6. The created license request file you then can send by e-mail to Spin Digital licensing team licensing@spin-digital.odoo.com or your authorized local distributor.

With the *cmu* tool, creating the license request can proceed as follow:

1. Open the Linux console or Windows Command Prompt.

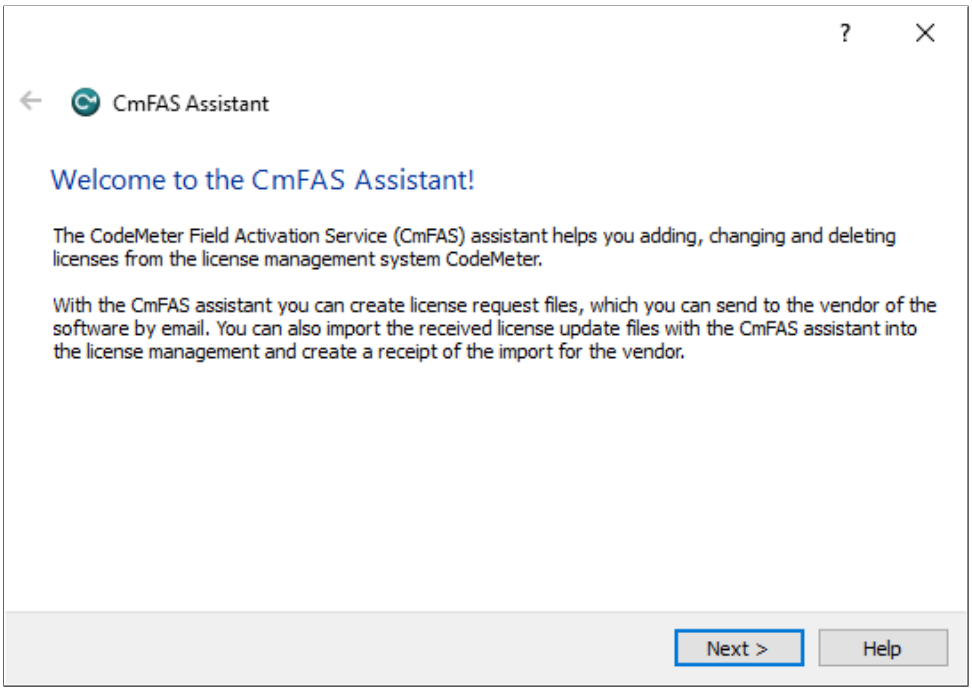


Figure 8: Open CmFAS Assistant

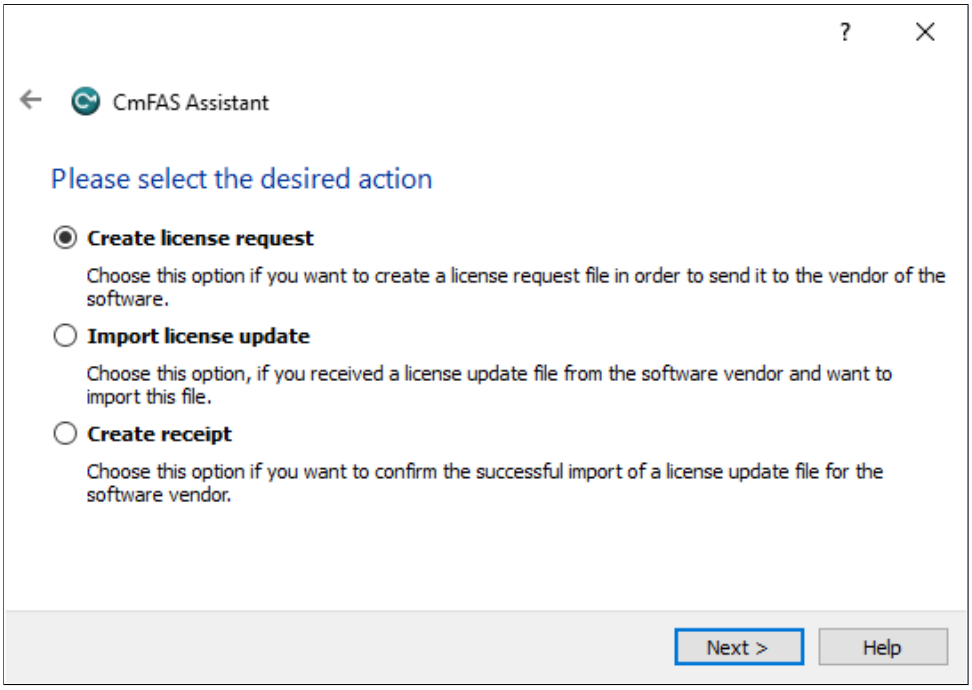


Figure 9: Create license request.

2. Execute the following command to list the connected CmContainer and find the serial number of the CmActLicense needs to be updated:
   `cmu[32] --list`
3. Create a license request file with CmActLicense's serial number found in the previous step:
   `cmu[32] --create-lt-context --lt-request-file $serial_number.WibuCmRaC --serial $serial_number --firmcode 6000362`

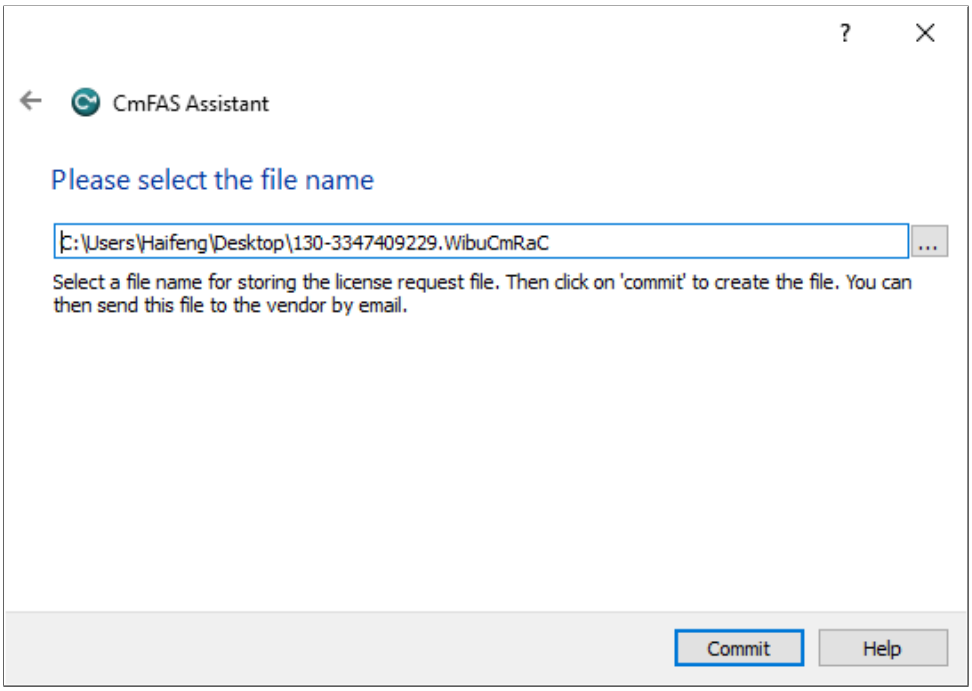


Figure 10: Select file for storing license request.

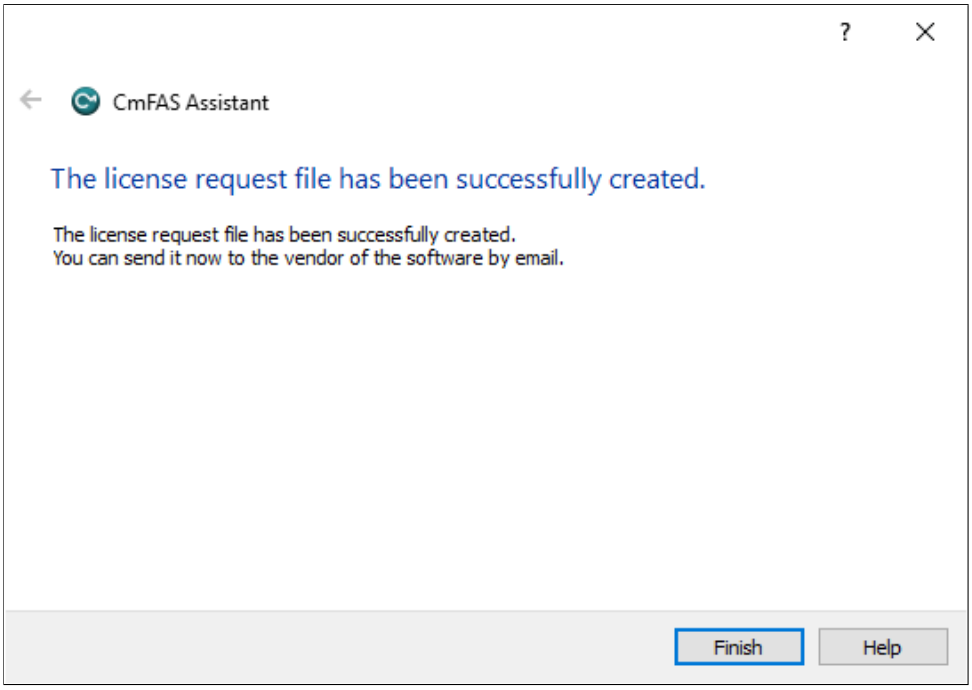


Figure 11: Close the CmFAS Assistant after license request file is created.

For instance, to create a license request for the empty CmActLicense installed in Section 2.1.2, you can use the following command:

```
cmu[32] --create-lt-context --lt-request-file 130-3347409229.WibuCmRaC
--serial 130-3347409229 --firmcode 6000362
```

4. The created license request file you then can send by e-mail to Spin Digital licensing team licensing@spin-digital.odoo.com or your authorized local distributor.

2.2.1.2 Create license request for CMDongle

To create license request with the *CodeMeter Control Center*, you can do the following steps:

1. Open *CodeMeter Control Center*. If several CMDongles are connected to the system, select the desired one. See Figure 12.

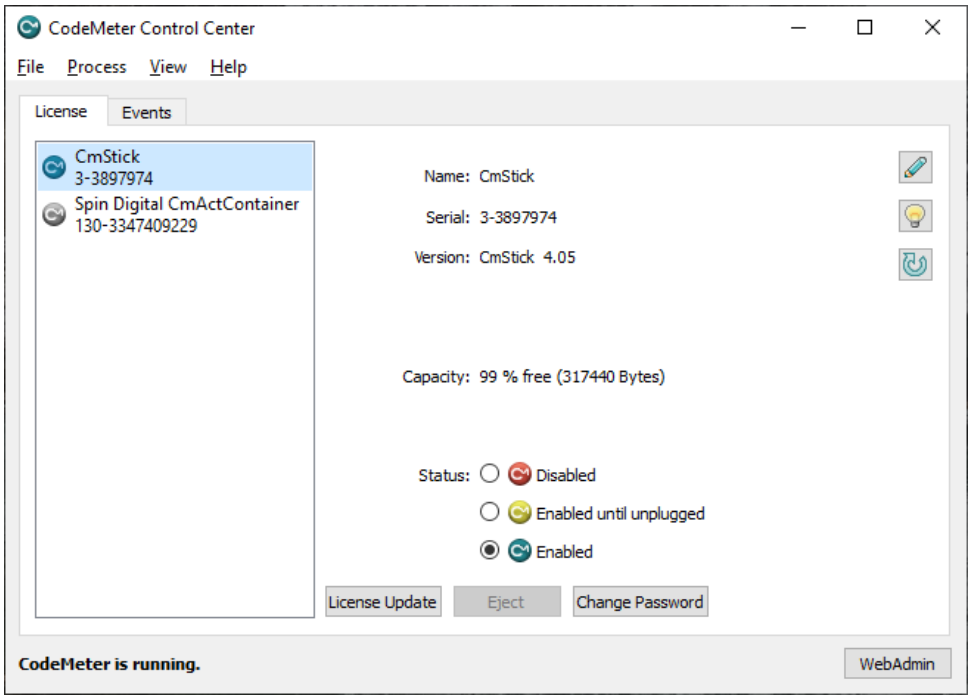


Figure 12: CmDongle License Update - CodeMeter Control Center

2. Click on the "*Update License*" button. The *CodeMeter Field Activation (CmFAS) Assistant* opens with a welcome dialog. Then click the "*Next*" button. See Figure 13.
3. Select the "*Create license request*" option on the new page of the CmFAS Assistant and click the "*Next*" button. See Figure 14.
4. Select the "*Extend existing license*" option and click the "*Next*" button. See Figure 15.
5. In the dialog for choosing the vendor, you will see the Spin Digital's firm code **6000362** or **102865**. Usually, only one of the firm codes will be present there, select it. In case you find both of them are listed, select the firm code **6000362**. After your selection click the "*Next*" button. See Figure 16.
6. The next dialog allows you to save the license request file to a desired location. Then click the "*Commit*" button to create the file. See Figure 17.
7. You receive a confirmation the license request file has been successfully created. Click on the "*Finish*" button to complete this process. See Figure 18.
8. This file you then can send by e-mail to the Spin Digital licensing team licensing@spin-digital.odoo.com or your authorized local distributor

The license request for a CmDongle can also be generated using the cmu tool.

1. Open the CodeMeter WebAdmin and check which Spin Digital firm code the desired CmDongle holds. The current Spin Digital firm code is 6000362. The CmDongle shipped before Sep.

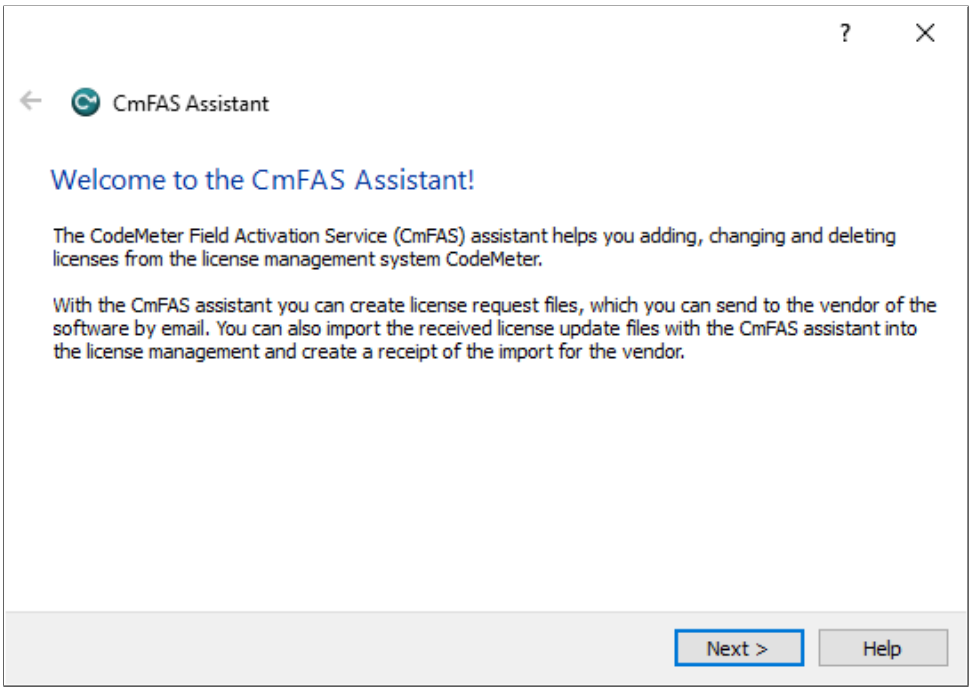


Figure 13: CmFAS Assistant

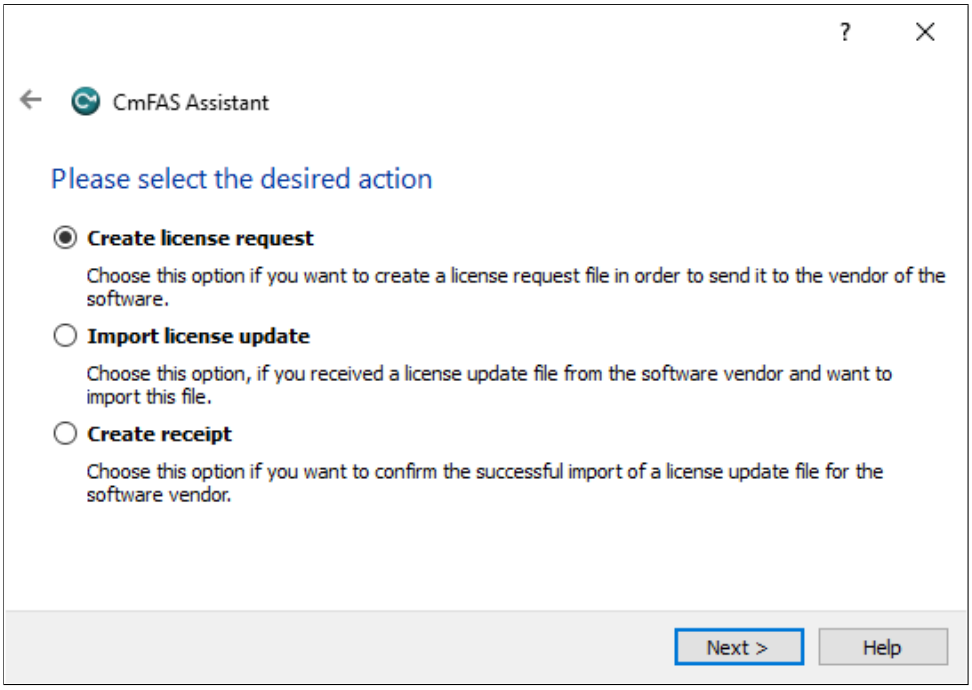


Figure 14: CmFAS - Create License Request

2017 contains the license using firm code 102865. For detailed instructions, please check Section.

2. Execute the following command to create a license request file:
   `cmu[32] -s $serial_number -c $spin_digital_vendor_code -f $serial_number.WibuCmRaC`
   where the "spin_digital_vendor_code" is the Spin Digital firm code you found in step 1.

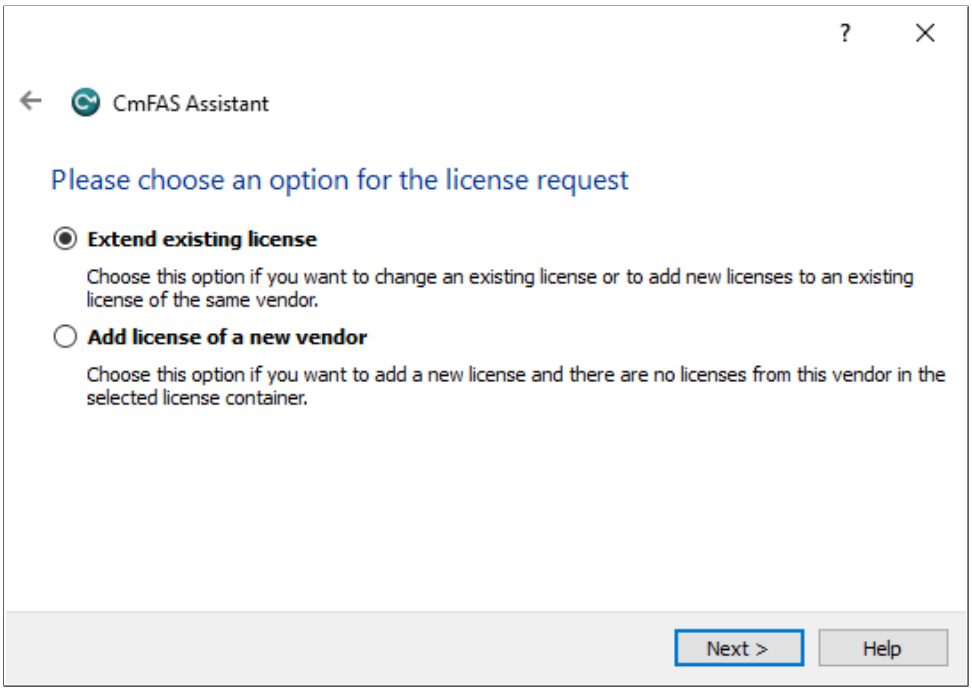


Figure 15: CmFAS Extend existing License

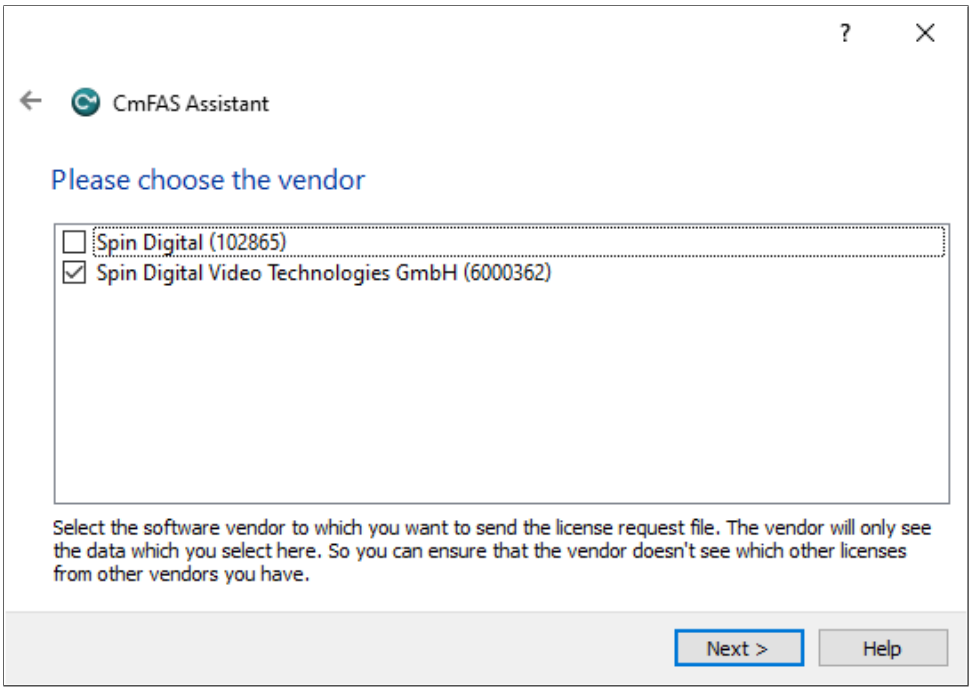


Figure 16: CmFAS - License Extension - Select Vendor

For example, `cmu32 -s 3-3897974 -c 6000362 -f 3-3897974.WibuCmRaC` creates a license request for the CmDongle 3-3897974 with firm code 6000363.

3. Now you can send the generated license request fil by e-mail to the Spin Digital licensing team licensing@spin-digital.odoo.com or your authorized local distributor

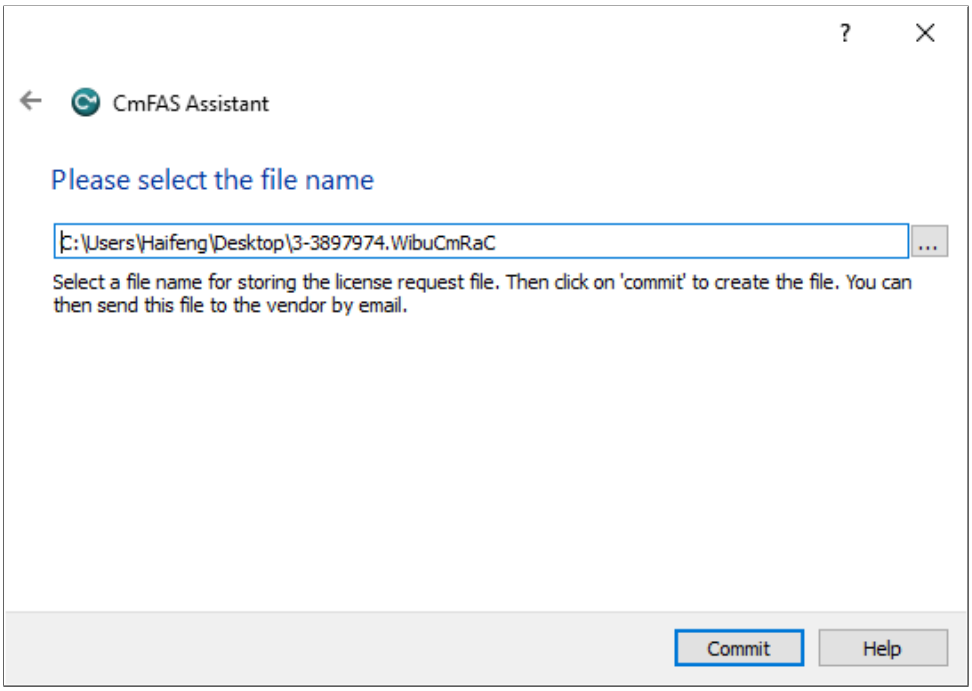


Figure 17: CmFAS License Extension Save File

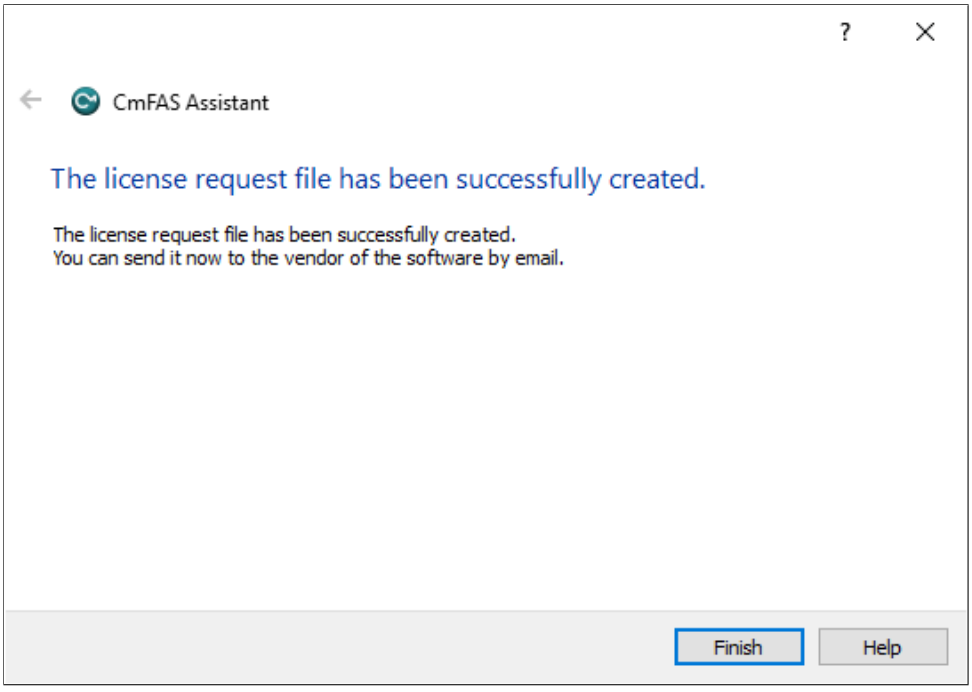


Figure 18: CmFAS - License Update - Receipt

2.2.2 Import the license update file

After receiving your license request file, Spin Digital will create a license update file (*.WibuCmRaU) and send that to you by e-mail. Once you get the license update file (*.WibuCmRaU) file, you can connect the accociated CmContainer to the computer and import this license file.

Before a license update, please save all your work and close all other running CodeMeter protected applications which access licenses on the target CmContainer.

Importing the license can be done in two ways:

- Open the *CodeMeter Control Center*, select the desired CmContainer, then drag the license update file into *CodeMeter Control Center*. If the license is successfully updated, you will get a confirming message similar to Figure 19.

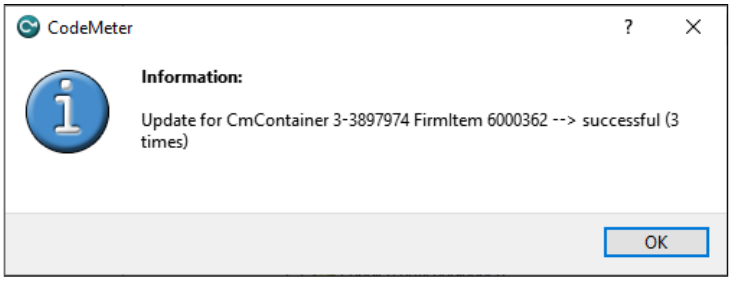


Figure 19: Import license update file - Confirmation

- Open a Linux console or Windows Command Prompt, executable the command:
  `cmu[32] -i --file $license_update_file.WibuCmRaU`
  The license update file name is normal the serial number of the CmContainer.

2.3 Set up Network License

To use the CmDongle or CmActLicense as the deplyment mode for the network licensing, the feature for network licensing must be enabled on the CmDongle or CmActLicense. Please contact the Spin Digital licensing team if you want to enable the network licensing.

Before using the network license, both the license server and the client should be appropriately configured. Figure 20 illustrates the local network license server-client setup.

2.3.1 Set up license server

On the license server side, make sure that the CodeMeter runtime is installed as well as the Spin Digital Licenses. Moreover, the SD local network server should be configured as follow:

1. Open *CodeMeter WebAdmin*.
   The *CodeMeter WebAdmin* can be opened through the *CodeMeter Control Center* or specifying the URL http://localhost:22352/ in a web browser. You can find more instructions in Section 2.1.3.
2. Open the "*Server Access*" page through "*Configuration*" → "*Server*" → "*Server Access*".
3. Select "*Enable*" for "*Network Server*", and click "*Apply*". See Figure 21.
4. Restart the CodeMeter service using *CodeMeter Control Center* through the menu "*Process*" → "*Restart CodeMeter Service*". See Figure 22.

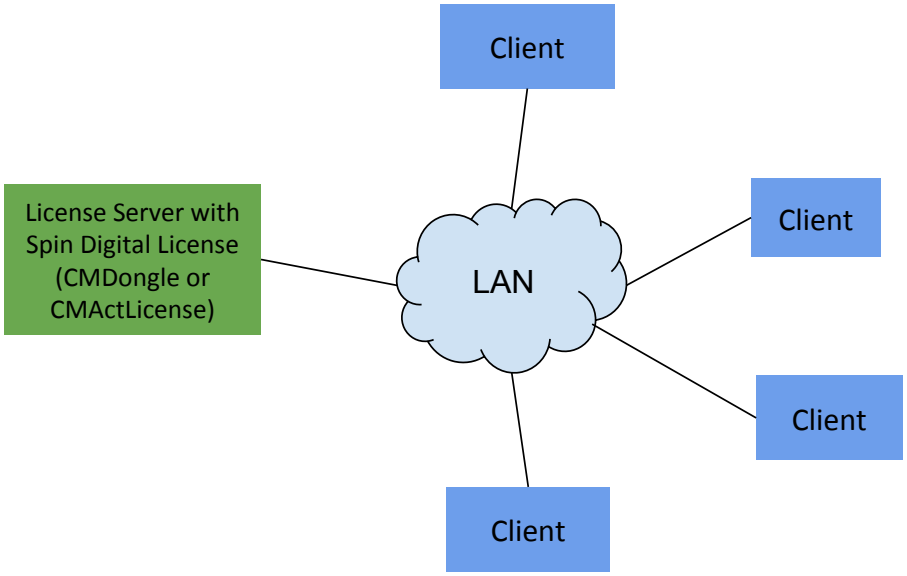


Figure 20: CodeMeter license server and clients.

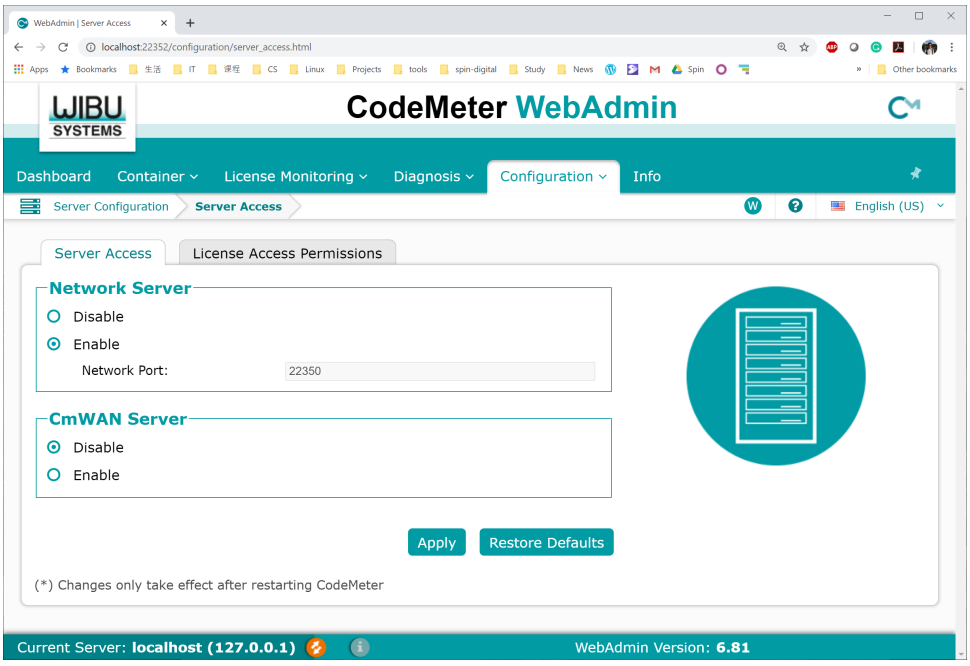


Figure 21: *CodeMeter WebAdmin* - license server configuration.

2.3.2 Set up client

On very client that is going to use the Spin Digital software, which needs to access a network license on the local network, the address of the CodeMeter license server has to be added to the server search list.

1. Open the "*Configuration* | *Basic* | *Server Search List*" page on *CodeMeter WebAdmin*. It

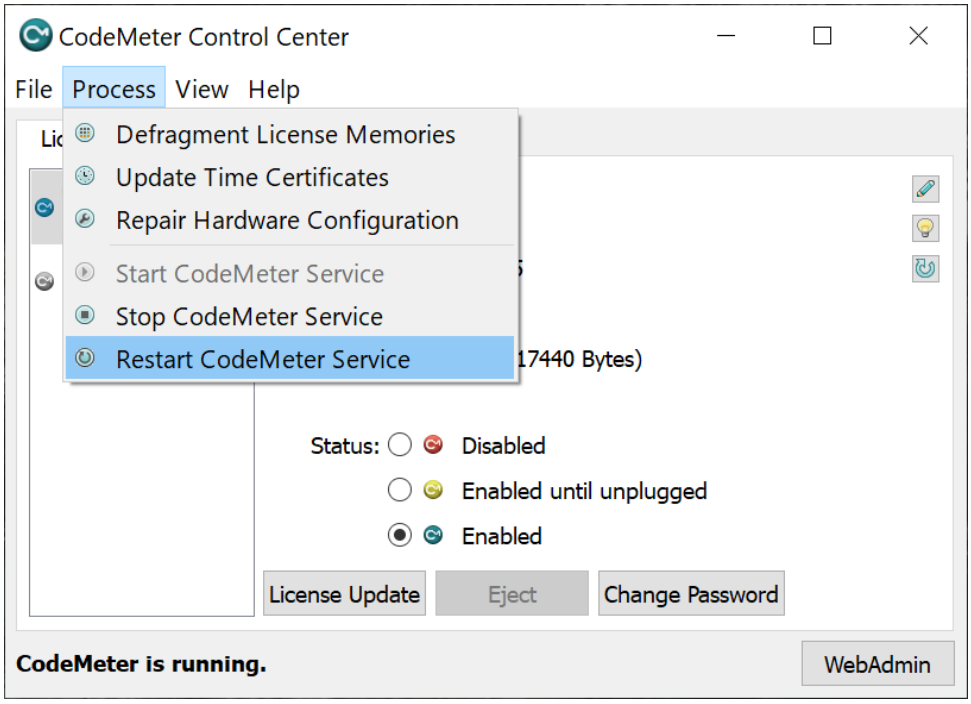


Figure 22: CodeMeter Control Center - restart service

allows defining access to and order of installed CodeMeter network server.

- Click add "*new Server*" will allow you to enter the license server's hostname or IP-Address. An example is shown in Figure 23. After that, click "*Add*" and "*Apply*" to apply changes.

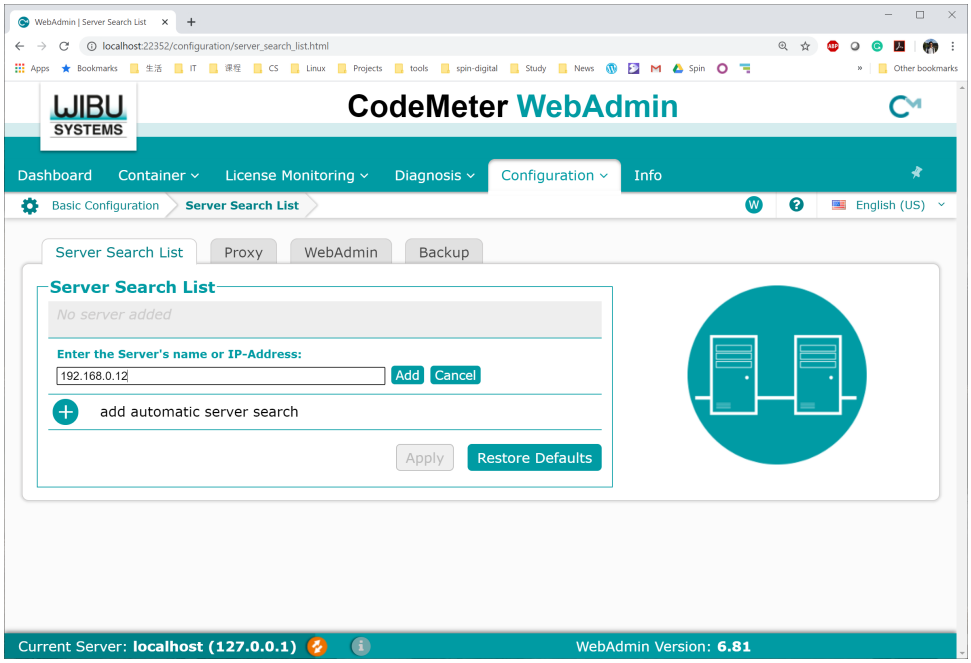


Figure 23: *CodeMeter WebAdmin* - add server

- Alternatively, you can also click "add automatic server search" to add "Automatic server

search (255.255.255.255)" to the search list. It will automatically perform a server broadcasting and search for all the license servers in the local network. However, this might increase the latency during the license check when you run the Spin Digital software.

2. If the SD license server was successfully added, the SD license server will appear in the server list by clicking the "*Current Server:*". An example is shown in Figure 24.

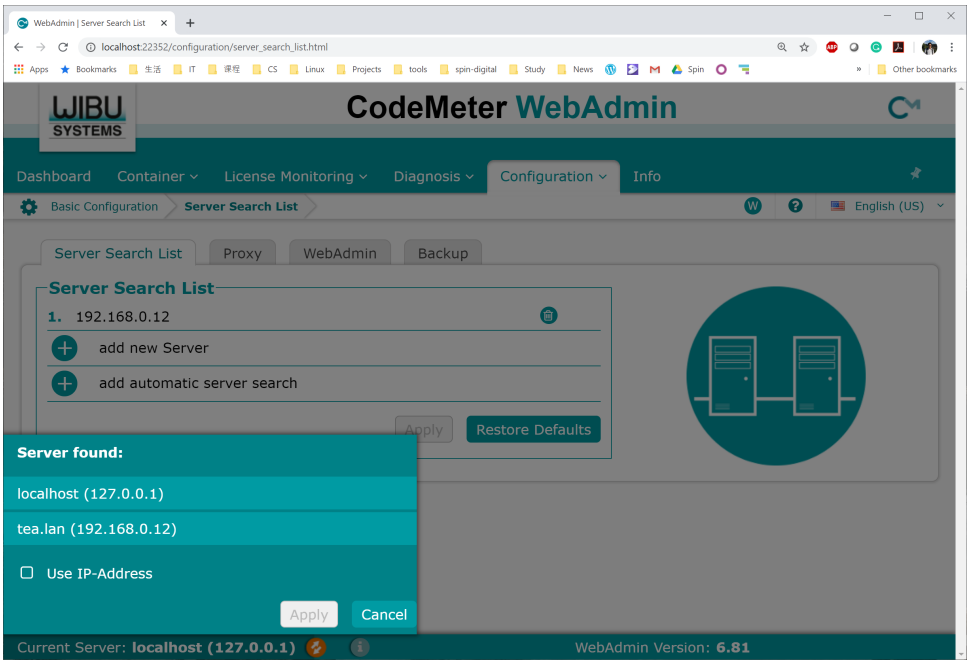


Figure 24: *CodeMeter WebAdmin* - Current Server

After setup the SD license server and configuring the server searching list on the client PC, the Spin Digital products can be launched on the client system. The number of computers, that can concurrently use Spin Digital products, depends on the number of floating licenses available on the license server.

2.4 License Utilities

2.4.1 Spin Digital License Tool for CodeMeter License - spinlicensetool_cm

spinlicensetool_cm is the Spin Digital license tool for the CmDongle or CmActLicense as the license deplyment mode. It can be used for:

- Listing the available CodeMeter licenses in the local system or/and from a LAN license server
- Creating a "licenseconfig.txt" file with a specific license.

Some samples for the common usage of *spinlicensetool_cm[.exe]* are listed as below:

- Lists all the license available on the local system and license server "*tea.lan*":
  `spinlicensetool_cm -l --subsys local_lan --server tea.lan`
  An example of the output is shown in Figure 25.

```
Available CodeMeter licenses:
        [0] Local license:
                server: localhost
                container: 3-3897990
        [1] LAN license:
                server: tea.lan
                container: 3-3410749
        [2] LAN license:
                server: tea.lan
                container: 3-3897997
        [3] LAN license:
                server: tea.lan
                container: 130-48710513
```

Figure 25: *spinlicensetool_cm* - list local license and network license from server "tea.lan"

- Write the first license configuration (with index 0) from the previous example's output to the default license configuration file "licenseconfig.txt':
  `spinlicensetool_cm -l --subsys local_lan --server tea.lan -w --index 0`
  After executing the command, a license configuration file "licenseconfig.txt" with the following content will be created.

```
subsystem=local
server=localhost
licfile=""
container_id=3-3897990
access_mode=stationshare
product=""
customer=""
user=""
```

Listing 1: Example of the licenseconfig.txt file for CodeMeter license.

A completed list of the command-line options are shown in Table 3.

Command	**Description**	
-h or **--help**	Displays usage information.	
-l or **--listlicense**	Lists available license configurations	
	--subsys <subsystem>	Specifies the subsystem used for searching the license. Acceptable values are: • *local_lan*: searches licenses in both local and network licenses. • *local*: searches local licenses only. • *lan*: searches network licenses only.
	--server <servername>	Specifies the CodeMeter license server name. Accepted multiple times
	--discover <0|1>	Enable CodeMeter license server discovery. Server broadcasting will be performed to find all the license servers within the local network if this option is enabled.
	--serial <serial>	Specifies the serial number of the CmContainer to be used. e.g. "3-3897974"
-w or **--wconfig**	Write the selected license configuration from the result of the listing license option (**-l** or **--listlicense**) to file. Using the option index selects the license configuration. If the license configuration index is not specified, uses the first one (with index 0). Using the option **--config** specifies the license configuration file. Write the license configuration to file "licenseconfig.txt" in the same folder where the *spinlicensetool_rm* located if the license configuration file is not specified.	
	--index <int>	Selects the license configuration that is the output from the **-l** or **--listlicense** option.
	--config <file>	Specifies the output file for the selected license configuration.

Table 3: Command-line options for *spinlicensetool_cm*.

2.4.2 CodeMeter Universal Support Tool - cmu

The CodeMeter Universal Support Tool (*cmu*) is a command-line-based tool used for license and license service operations, such as:

- Listing of CmContainers and their contents
- Creating a license request and importing a license update
- Executing a certified time update and firmware update for CmContainer
- Adding license server to server search list

On Windows, call cmu in the directory `%ProgramFiles%\CodeMeter\Runtime\bin` using the command cmu[32].exe. On Linux, you can call it from the console.
This tool is installed along with the CodMeter runtime.

Using *cmu* for listing the CmContainers and doing license update has been explained in Section 2.1.3 and Section 2.2. A list of other usual usages are described below:

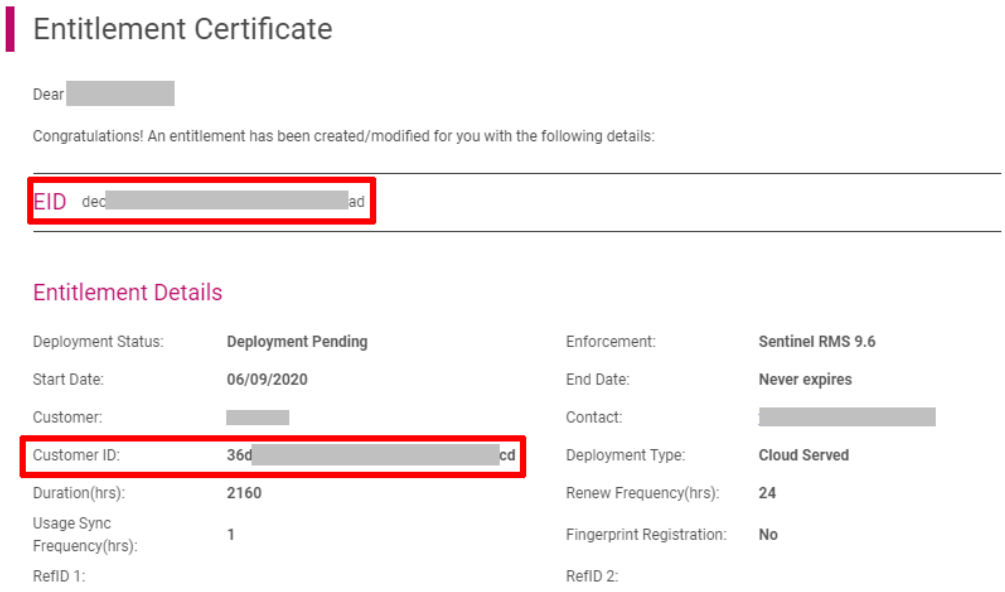
- Displays help: **-h** or **–help**
  `cmu[32] -h`
- Creates **C**ode**M**eter End**u**ser **S**upport **T**ool logs (CMDust): **-vv** or **–cmdust**. Using the option **–file** writes the result into a text file.
  For example: `cmu[32] --cmdust --file cmudust.log`
  Note: The cmdust logs are important for checking the CodeMeter license service status and analyzing the CodMeter license issue. If you have issues with the CodeMeter license or license services, please send the cmdust logs (output of the command `cmu[32] --cmdust`) to the Spin Digital support team support@spin-digital.odoo.com.
- Lists the license server: **-k** or **–list-serve**
- Adds license server to the license server search list: **–add-server**.
  For example: `cmu[32] --add-server 192.168.0.12`
- Updates the firmware of a CmDongle: **-d** or **–firmware-update**.
  For example, `cmu[32] -d -s 3-3897974` updates the firmware for CmDongle 3-3897974.
- Updates a CMDongle's certified time: **-u** or **–time-update**.
  For example, `cmu[32] -u -s 3-3897974` updates the certified time for CmDongle 3-3897974.

3 Sentinel RMS Lease License

When using the Sentinel RMS lease license as the license deplyment mode, the license is not activated permanently on a system, but instead the license is leased from a license server for a fixed time. It uses a license server in the cloud to get a license which is then stored on the local system. This process is called license synchronization and requires an Internet connection and credential information. The credential information is stored inside a file called `sntlcloudp_configuration_spindigitalvideotechnologiesgmbh.xml`. It can be created with the Spin Digital license tool. After license synchronization, the license content will be fetched from the license server and attached to a local license file called `lservrc`. This local license file enables the software to run without Internet connection for up to three months. In regular intervals, the license is renewed automatically if an Internet connection is available.

3.1 Synchronize and Initialize License

Before first use on a system, the license has to be synchronized with the cloud license server. Additionally, the license environment has to be initialized on the system. This system initialization requires administrator rights, and is only required to be done once on a system.


Entitlement Certificate

Dear [redacted]

Congratulations! An entitlement has been created/modified for you with the following details:

EID dec[redacted]ad

Entitlement Details

Deployment Status:	Deployment Pending	Enforcement:	Sentinel RMS 9.6
Start Date:	06/09/2020	End Date:	Never expires
Customer:	[redacted]	Contact:	[redacted]
Customer ID:	36d[redacted]cd	Deployment Type:	Cloud Served
Duration(hrs):	2160	Renew Frequency(hrs):	24
Usage Sync Frequency(hrs):	1	Fingerprint Registration:	No
RefID 1:		RefID 2:	

Figure 26: Example of e-mail with entitlement certificate for a leases license

To access and use the license, certain credential information is required. At this point, you should already have received an e-mail with this information. The mail is send by *emsmks@safenet-inc.com*

with the subject *EMS - Entitlement Certificate*. If you have not received this e-mail, please check your spam folder or contact Spin Digital and request a license. Along with other information, the mail includes the required credential information that is needed to acquire the leases license. An example is shown in Figure 26. The first required value is called *EID* and can be found at the top. The second value is called *Customer ID* and can be found under *Entitlement details*.

To perform the license synchronization and initialization, use the Spin Digital license tool to create the correct configuration files and perform the lease license operations. To do this, please execute the following steps:

- Windows:
  1. Open file explorer and navigate to the directory where the Spin Digital license tool (*spinlicensetool_rms.exe*) is located
  2. Open a console with administrator rights by clicking the *File* menu button, hovering over *Open Windows PowerShell* and then clicking *Open Windows PowerShell as administrator*.
  3. Type the following command while replacing the values for *eid* and *customer* with the ones from the e-mail. Make sure to run the command from the directory where the binary is located, as shown here. If the system was already initialized before, **`--init`** can be removed from the command.
     (a) **`./spinlicensetool_rms.exe --lease sync --eid 123-abc --customer 123-abc --init`**
  4. If everything is successful, the following files should have been created in the same directory as the binary:
     (a) *sntlcloudp_configuration_spindigitalvideotechnologiesgmbh.xml*
     (b) *lservrc*
- Linux:
  1. Open a console and type the following commands. The values for *eid* and *customer* have to be replaced with the ones from the e-mail. Make sure to execute the license tool from the directory where the binary is located, as shown here. If the system was already initialized before, **`sudo`** and **`--init`** can be removed from the command.
     (a) **`cd /path/to/spin_binaries`**
     (b) **`sudo ./spinlicensetool_rms --lease sync --eid 123-abc --customer 123-abc --init`**
  2. If everything is successful, the following files should have been created in the same directory as the binary:
     (a) *sntlcloudp_configuration_spindigitalvideotechnologiesgmbh.xml*
     (b) *lservrc*

After these steps, the Spin Digital software should be ready to use. In case of errors, please confirm the correct steps above and contact Spin Digital in case of problems.

3.2 Upgrade License

After a license is already in use, the license can still be upgraded or modified. If such a modification is required, please contact the Spin Digital licensing team (licensing@spin-digital.odoo.com) and ask for a license update. After the license has been updated on the SCC license server, the local license has to be updated by forcing a synchronization.

This can be done similar to the initial lease synchronization as described in Section 3.1. In the steps described there, the XML configuration file which contains the license server credentials has already been created. Therefore the credentials do not have to be provided again. Also the system initialization does not have to be done again if the license is used on the same system. With these assumptions, it is enough to perform the following steps to synchronize the license:

- Windows:
  1. Open file explorer and navigate to the directory where the Spin Digital license tool (*spinlicensetool_rms.exe*) is located.
  2. Open a console by clicking the *File* menu button, hovering over *Open Windows PowerShell* and then clicking *Open Windows PowerShell*.
  3. Type the following command. Make sure to run the command from the directory where the binary is located, as shown here.
     (a) **`./spinlicensetool_rms.exe --lease sync`**
- Linux:
  1. Open a console and type the following commands. Make sure to execute the license tool from the directory where the binary is located, as shown here.
     (a) **`cd /path/to/spin_binaries`**
     (b) **`./spinlicensetool_rms --lease sync`**

After these steps, the Spin Digital software should be ready to use with the updated license. In case of errors, please confirm the correct steps above and contact Spin Digital in case of problems.

3.3 Cancel License

After a leased license was synchronized, it is stored on the local machine to be used by the Spin Digital software. As long as the lease is active, this particular license is not available anymore on other machines as it can be used only on one machine at a time. However, it is possible to cancel an active lease so that the license becomes available again on the cloud license server. Afterwards, it can be synchronized to another system.

Please perform the following steps to cancel a license lease:

- Windows:
  1. Open file explorer and navigate to the directory where the Spin Digital license tool (*spinlicensetool_rms.exe*) is located
  2. Open a console by clicking the *File* menu button, hovering over *Open Windows PowerShell* and then clicking *Open Windows PowerShell*.
  3. Type the following command. Make sure to run the command from the directory where the binary is located, as shown here.
     (a) **`./spinlicensetool_rms.exe --lease cancel`**
- Linux:
  1. Open a console and type the following commands. Make sure to execute the license tool from the directory where the binary is located, as shown here.
     (a) **`cd /path/to/spin_binaries`**
     (b) **`./spinlicensetool_rms --lease cancel`**

After these steps, the local license becomes invalid and becomes available on the cloud license server. In order to resume a lease that was previously canceled (on the same system), you can use the the Spin Digital license tool similar to the way above, but replacing **`--lease cancel`** with **`--lease resume`**.

3.4 License Utilities

3.4.1 Spin Digital License Tool for Sentinel License - spinlicensetool_rms

spinlicensetool_rms[.exe] is a variant of the Spin Digital license tool *spinlicensetool* for the Sentinel on-premises and lease license deplyment modes. For Sentinel lease license deplyment mode, it can be used for:

- Performing the lease license operations.
- Initialize the system for the Sentinel license.
- Listing the available Sentinel licenses.
- Creating a "licenseconfig.txt" file with a specific license.

The usage of *spinlicensetool_rms* for initilizing license as well for the lease license operations has been explained in the previous sections. Some samples for other common usage are listed as below:

- Lists the available license from a license file
  `spinlicensetool_rms[.exe] -l --license lservrc`
  An example of the output is shown in Figure 27.

```
Available Sentinel RMS licenses:

       [0] Local license:
              license file: D:\Projects\spinsdk\build\spinsdk\libs\windows\lservrc
              product: Test
```

Figure 27: *spinlicensetool_rms* - list license from license file "lservrc"

- Write the first license configuration (with index 0) from the previous example's output to the default license configuration file "licenseconfig.txt':
  `spinlicensetool_rms[.exe] -l --license lservrc --index 0 -w`
  After executing the command, a license configuration file "licenseconfig.txt" will be created with the following content .

```
subsystem=local
server=""
licfile=D:\Projects\spinsdk\build\spinsdk\libs\windows\lservrc
container_id=""
access_mode=""
product=Test
customer=""
user=""
```

Listing 2: Example of the licenseconfig.txt file for Sentinel license.

A completed list of the command-line options are shown in Table 4.

Command	Description	
-h or **--help**	Displays usage information.	
--lease <option>	Performances a license leasing operation:	
	sync	Synchronize the license from the Sentinel cloud license server.
	cancel	Cancel the license leasing from the current system, so the license can be used on the other system.
	resume	Resume the canceled license leasing.
	--eid <id>	Specifies the entitlement ID for leasing license
	--customer <id>	Specifies the customer ID for leasing license
--init	Initialize the system for the license to work on it.	
-l or **--listlicense**	Lists available license configurations	
	--subsys <subsystem>	Specifies the subsystem used for searching the license. Acceptable values are: • *local_lan*: searches licenses in both local and network licenses. • *local*: searches local licenses only. • *lan*: searches network licenses only.
	--server <servername>	Specifies the CodeMeter license server name. Accepted multiple times
	--discover <0|1>	Enable CodeMeter license server discovery. Server broadcasting will be performed to find all the license servers within the local network if this option is enabled.
	--product <product>	Specifies the product prefix of the license to be used.
-w or **--wconfig**	Write the selected license configuration from the result of the listing license option (**-l** or **--listlicense**) to file. Using the option index selects the license configuration. If the license configuration index is not specified, uses the first one (with index 0). Using the option **--config** specifies the license configuration file. Write the license configuration to file "licenseconfig.txt" in the same folder where the *spinlicensetool_rm* located if the license configuration file is not specified.	
	--index <int>	Selects the license configuration that is the output from the **-l** or **--listlicense** option.
	--config <file>	Specifies the output file for the selected license configuration.

Table 4: Command-line options for *spinlicensetool_rms*.