

Version: 1.6 - **Published:** 30 May 2023

This document relates to Charon License Utility versions 2.3, 2.4 and **2.5** (dated 30-May-2023). To get the download link, please contact us.


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Introduction

This utility allows the installation/uninstallation of the 'Sentinel LDK License Manager' service and drivers. It enables the use of USB license dongles and Software Licenses (SL) management.

It can be used to install a Windows server as a license server with software licenses or USB network licenses (red dongles) or simply to easily update USB dongle licenses from a server/laptop/desktop where Charon-AXP/VAX/PDP is not installed.

 It can be installed even if Charon-AXP/VAX/PDP is already installed.


Features:

- Easy installation/uninstallation of the driver
- Read license content
 - working even from a remote desktop connection (RDP) → this requires the utility to be executed as Administrator
 - highlights on license expiration date
- Removing a Software License (SL)
- Access to Sentinel Admin Control Center
- Access to update license utility
- Stop/start 'Sentinel LDK License Manager' service
- License expiration check with alerts sent as Windows Application Event or email or custom script

Prerequisites

- Powershell 5.1*
To get the update, please open the page: <https://docs.microsoft.com/en-us/powershell/scripting/windows-powershell/install/installing-windows-powershell>
- .NET Framework 4.6 minimum installed, 4.8 recommended. Installed by default on Windows 10, 11, 2016, 2019 and 2022. For older versions of Windows, this has to be installed manually.
For more, see: <https://docs.microsoft.com/en-us/dotnet/framework/migration-guide/versions-and-dependencies>

*: If you installed PowerShell 7, please ensure PowerShell 5.1 is installed (not 4.0)

 **If PowerShell 5.1 or .NET 4.8 is not installed**
Manual driver installation:

- Open a cmd.exe window as an administrator and move to the folder "C:\Program Files\CHARON\Charon License Utility"
- Remove old version of CHARON license driver (if any): "> haspdinst -fr -kp -nomsg"
- Install the License driver using the following command: "> haspdinst -i"
- Copy the file "haspvlib_68704.dll" to "C:\Program Files (x86)\Common Files\Aladdin Shared\HASP" (in case of x64 host) or "C:\Program Files\Common Files\Aladdin Shared\HASP" (in case of x86 host)

Usage:

- Run the "RUS_OQEDC" program to update licenses (get C2V file and apply V2C file)
- Run the "hasp_view" program to view the license content
- Open your web browser and go to "<http://localhost:1947>" page to access the Sentinel Admin Control Center

Installation

Run the installer (.msi file). Once the kit (.msi file) is installed, a shortcut will be created on the desktop and in the Windows start menu.

When installing the utility for the first time, you'll need to install the driver if not already installed.

You can right-click anywhere in the form and get information on the utility and release notes.

Usage

Run the utility by double clicking on the desktop shortcut or open the Windows menu and run "Charon License Utility".

Home page description

Charon License Utility V2.2

Local host
USB dongles: 1
Software licenses: 1

Automatically

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Install Sentinel driver
Sentinel Admin Control Center
Display license content
License update utility
Uninstall Sentinel driver
Stop Sentinel License service
Package version versus installed
Software License removal
License expiration check settings
Browse HASP log files folder
Exit

General information Expiration check general settings Expiration check email settings

Sentinel LDK License Manager service
Status : Running
Uptime : 24:22:26:17
Start type : Automatic
Image : License Manager version 8.0
File version : 24.2.1.105205
Installed package : 8.13.105211.1

Local host information
Mode : Administrator (rdp-tcp#34)
Computer name : WIN10-MAIN
Username : bruno
Windows Version : Microsoft Windows 10 Pro
No service pack
Windows Release Id : 2009
Displayed version : 22H2

Buttons used to refresh the home page, open the Product Documentation and Knowledge Base (Stromasys Wiki), display contacts & addresses and to open the customer portal to open support tickets (account required)

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- Hovering over a button with the mouse will provide details.
- A right click anywhere in the form will open a drop-down menu to display 'About (this utility)' and 'Release Notes'.

Display license content

Example with USB dongle

The screenshot shows the Charon License Utility V2.2 application window. The title bar includes the application name and standard window controls. The interface features a top navigation bar with icons for home, folders, email, and help, alongside a status box indicating 'Local host' with 'USB dongles: 1' and 'Software licenses: 1'. The 'stromasys' logo is in the top right corner.

The main area is divided into tabs: 'General information', 'Expiration check general settings', 'Expiration check email settings', and 'License content'. The 'License content' tab is active, displaying a table of license information:

Key Id	Number	Type	Served by
✓ 655234219	1003953	License Dongle (Local)	This host
✗ 340823357928523443	-	Software license	This host

Below the table, a detailed log of license information is displayed for the selected key (655234219):

```
Trying to connect to the key: 655234219
License Manager running at host: win10-main (this host)
License Manager IP address: 127.0.0.1
The Physical Key ID: 655234219
License type: License Dongle (Local)
CHARON Sentinel HASP License key section
The License Number: 1003953
The License KeyId: 655234219
The Master KeyId: 1645066348
Release date: 07-NOV-2022
Release time: 9:59:55
Update number: 15
End User name: Geneva Lab
Purchasing Customer name: Stromasys

Virtual Hardware: AlphaServer_DS10, AlphaServer_DS10L, AlphaServer_DS15,
AlphaServer_DS20, AlphaServer_DS25, AlphaServer_ES40, AlphaServer_ES45,
AlphaServer_GS80, AlphaServer_GS160, AlphaServer_GS320, AlphaServer_400, AlphaServer_
800, AlphaServer_1000, AlphaServer_1000A, AlphaServer_1200, AlphaServer_2000,
AlphaServer_2100, AlphaServer_4000, AlphaServer_4100
Product Name: CHARON-AXP
Product Code: CHAXP-470xx-WI-LI
Major Version: 4
Minor Version: 12
Operating system type requirements: 64bit
Host Operating System required: WINDOWS, LINUX
CPU's allowed: 32
Maximum virtual memory: 262144MB
Product expiration date: 11-May-2023 01:55 (185 days remaining)
Instances allowed: 10
Feature number: 1
```

The interface also includes a sidebar with various utility buttons such as 'Install Sentinel driver', 'Sentinel Admin Control Center', 'Refresh license content', 'License update utility', 'Uninstall Sentinel driver', 'Stop Sentinel License service', 'Package version versus installed', 'Software License removal', 'License expiration check settings', and 'Browse HASP log files folder'. An 'Exit' button is located at the bottom left of the sidebar.

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Example with cloned software license

Charon License Utility V2.2

Local host
 USB dongles: 1
 Software licenses: 1

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General information | Expiration check general settings | Expiration check email settings | License content

Key Id	Number	Type	Served by
✓ 655234219	1003953	License Dongle (Local)	This host
✗ 340823357928523443	-	Software license	This host

Trying to connect to the key: 340823357928523443
 HASP key 340823357928523443 not found or of improper type.

This Software License may be in cloned state. Please check!

To do so, open the 'Sentinel Admin Control Center' and check for cloned licenses in the 'Sentinel Keys' option. 1

If a Software license is detected as 'Cloned', please:

- Use the 'Software License removal' option and remove it 2
- Generate a new fingerprint: click on the 'License update utility' button and select 'Installation of new protection key' 3
- Send the generated .c2v file to Stromasys
- Wait for Stromasys to send you back a .v2c file
- Apply the license update (.v2c file) using the same utility (select 'Apply License File' tab).

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This software license is in cloned state as confirmed by the Sentinel Admin Control Center:

gemalto Sentinel Admin Control Center

Sentinel Keys Available on win10-main

#	Location	Vendor	Key ID	Key Type	Configuration	Version	Sessions	Actions
1	Local	68704 (68704)	655234219	HASP HL Time	-	3.25	2	Products Features Sessions Blink on
2	Local	68704 (68704)	340823357928523443	HASP SL AdminMode Cloned	-	7.60	-	Products Features Sessions Certificates C2V

Possible reasons for cloned state are detailed here: [Software Licensing restrictions](#).

Package version versus installed version

This option allows you to check if the driver version installed is more recent or not than the one provided with the license utility.

The screenshot shows the Charon License Utility V2.2 interface. The sidebar on the left has the 'Package version versus installed' option selected. A dialog box titled 'Sentinel Run-time Environment Installer v. 8.13' is open, displaying a comparison of installed and installer package drivers. A blue arrow points from the 'Package version versus installed' option to the dialog box.

Installed Package Drivers : not installed

hlvdd.dll	2.21
aksclass.sys	1.32
akshasp.sys	4.26
akshhl.sys	1.27
aksusb.sys	3.44
akspccard.sys	not loaded
akshsp53.dll	1.23
akshhl33.dll	1.26
aksusb5.dll	1.32
hasplms.exe	24.2
hardlock.sys	3.93
aksfridge.sys	1.81
aksdf.sys	1.52

Installer Package Drivers 8.13:

hlvdd.dll	2.21
aksclass.sys	1.32
akshasp.sys	4.26
akshhl.sys	1.27
aksusb.sys	3.44
akspccard.sys	1.3
akshsp53.dll	1.23
akshhl33.dll	1.26
aksusb5.dll	1.32
hasplms.exe	24.2
hardlock.sys	3.93
aksfridge.sys	1.81
aksdf.sys	1.52

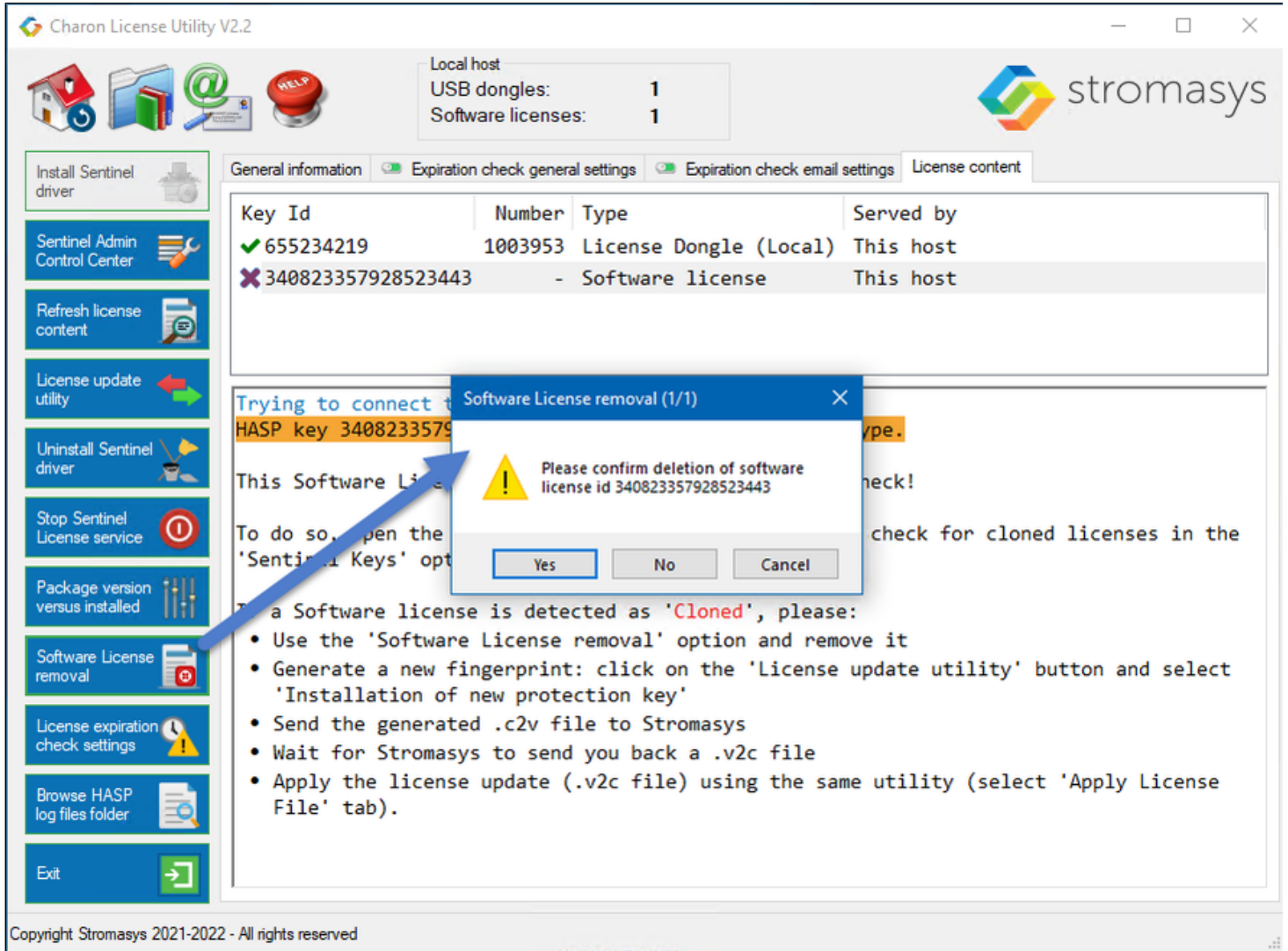
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Stop/start Sentinel License service

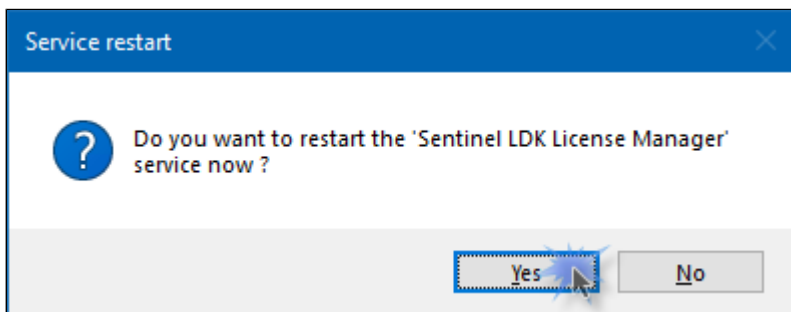
This option is used to stop the 'Sentinel LDK License Manager' service if it is running or to start it if not.

Software License removal

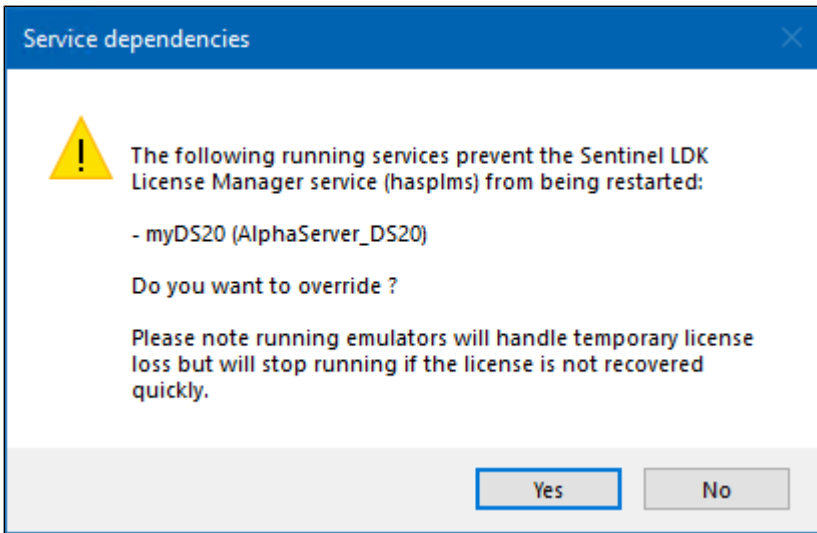
A popup window is displayed containing the software license key id, please answer yes or no to delete it or not:



If at least one license is deleted, a request is made to restart the 'Sentinel LDK License Manager' service:



If a Charon emulator (service) is running, a confirmation is requested to force the restart:

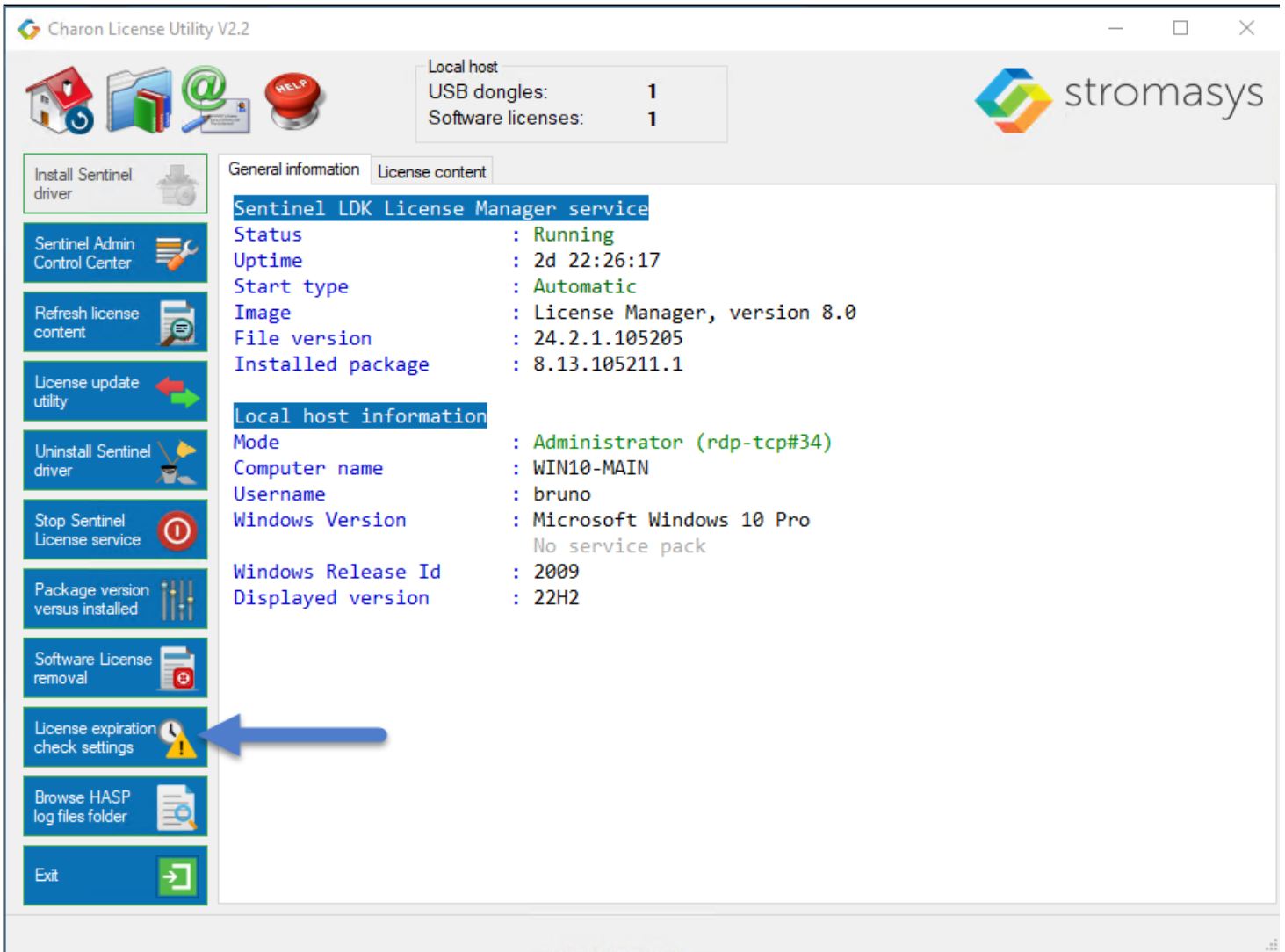


i Removing a software license does not erase the file, it is archived in %programdata%\CharonLicenseUtility folder with date/time as extension so that it can be restored in case of mistake.

License expiration check settings

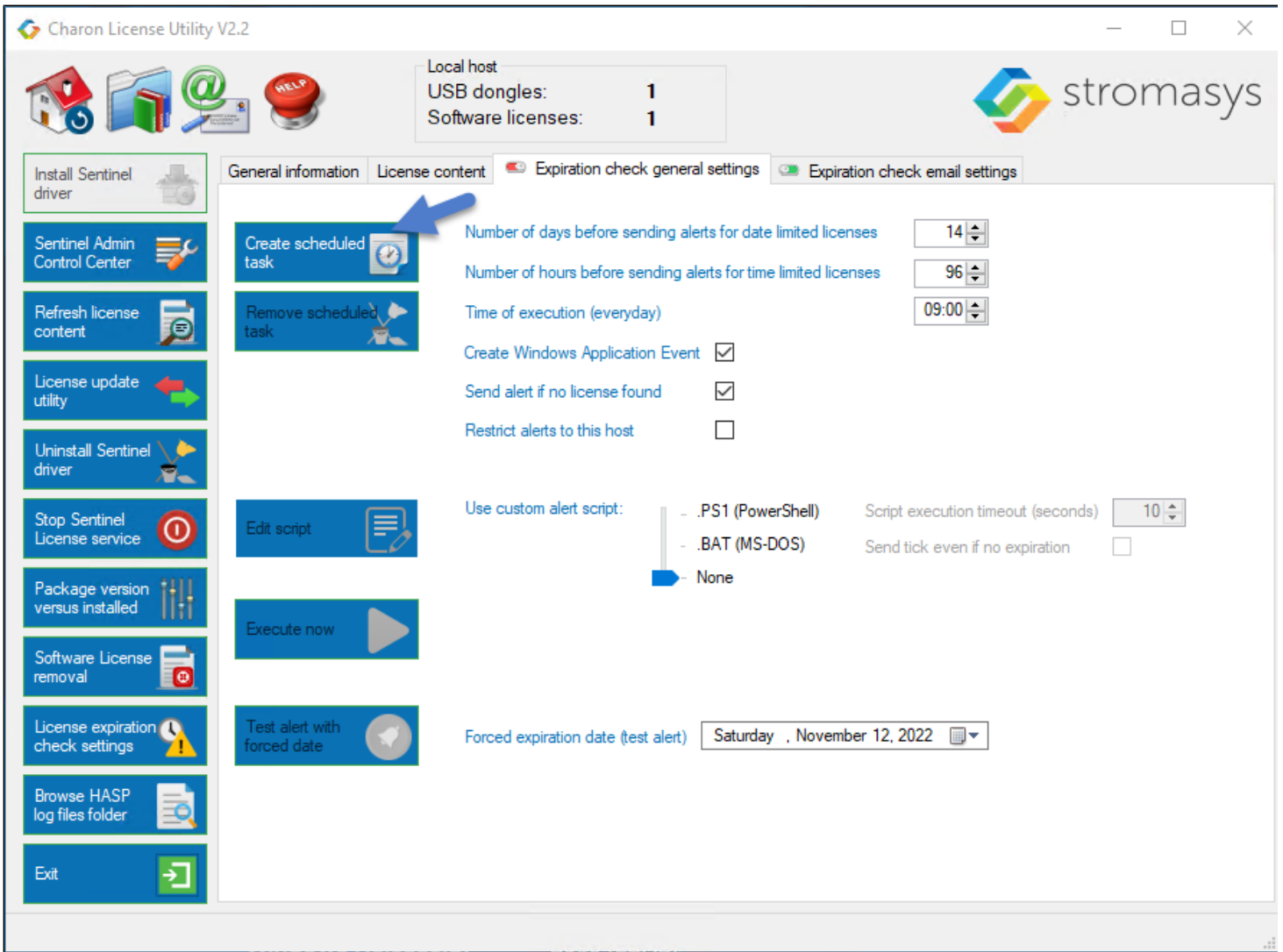
- w** This utility requires PowerShell 5.1 and .Net framework 4.6 minimum and cannot work on Windows 2008 due to several PowerShell commands not compatible with this version.
- If you need to install a license expiration check for Windows 2008, use the old script that has to be installed manually: [CHARON on Windows - Automated License Expiration Check](#)

Click the "License expiration check settings" button:



⚠ If the "License expiration check settings" button does not appear, this means you're using Windows 2008 with PowerShell 4.0 or 5.1 (does not work in both cases) or Windows 2012R2 with PowerShell 4.0 (to upgrade to PS 5.1, see [Powershell version, upgrade, enabling scripts execution, tips and tricks](#)). More recent Windows versions have PS 5.1 already installed and dotnet 4.6 minimum.

Click then on the "Create Scheduled task" button:

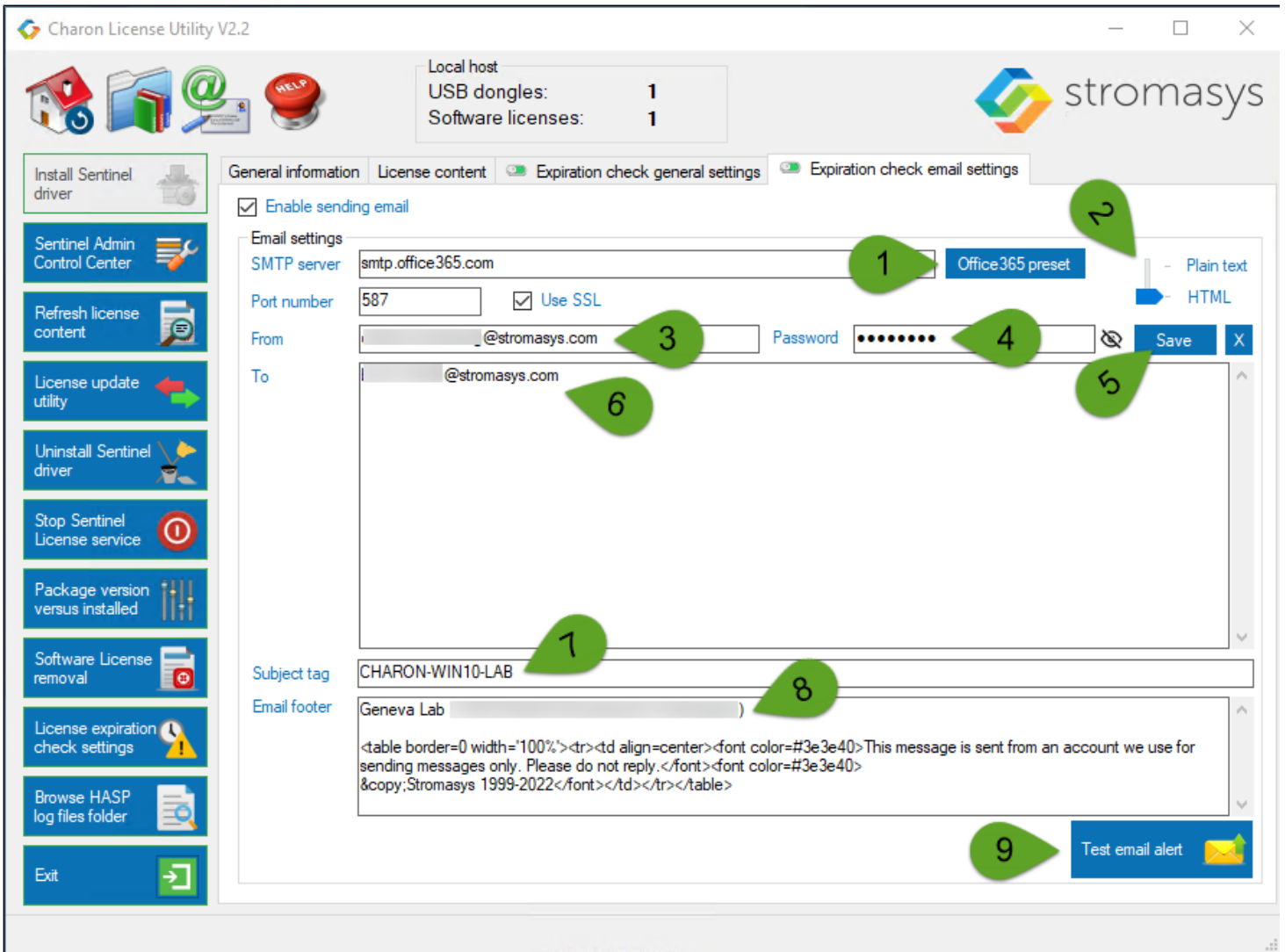


? If the task (same name, same folder) was already created using the previous PowerShell script (setup with command lines), you will be requested to remove it before using the new one.

Configure it as you need. If you need a custom script to be executed the "Edit script" button allows you to open it with notepad++ if installed, otherwise notepad. If the script does not exist, a skeleton will be created.

Before using the "Execute now" and "Test alert with forced date" options, it is recommend to setup the email settings in the next tab as by default only Windows Application Events are generated (source = CharonLicenseExpChk)

Email configuration example:

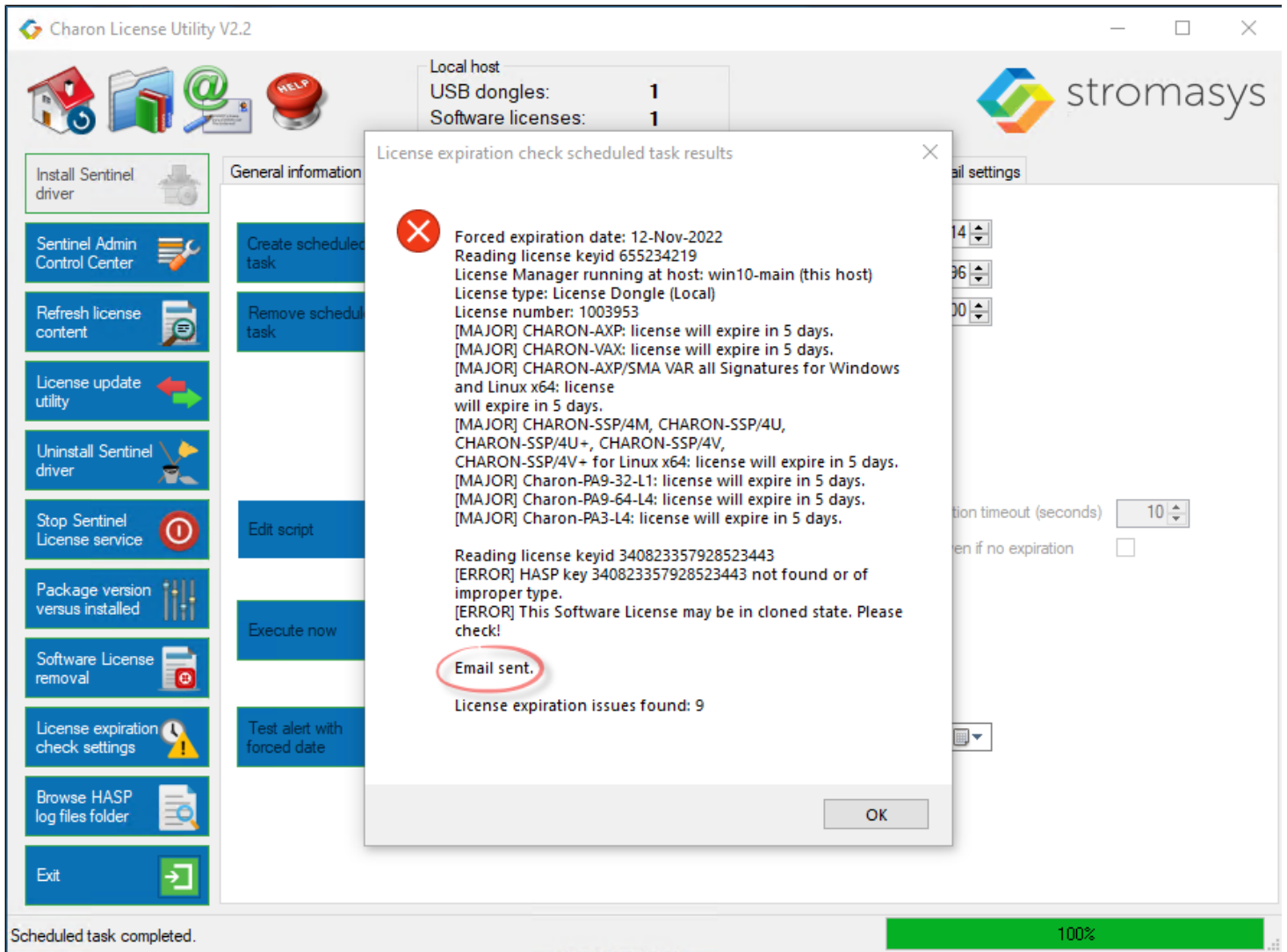


Notes:

- If you're using Office365, you can click on office365 preset button if you plan to use it, this will fill the SMTP server, port number and SSL fields automatically.
- When the password is entered, the "Save" button background becomes orange to remind you to click on it to encrypt and store the password (if a password is needed of course).
- **⚠ Important note:** use a dedicated account to send alerts, do not use your personal one (FYI: the password is encrypted and stored in the registry. It is valid only on the computer where it is stored and for the 'system' account only)
- If the Charon Log Monitor utility is installed on your server and email is already configured, after clicking on "Enable sending email", you will be prompted to copy the email settings from this utility.
- HTML mode is highly recommended.
- Subject tag allows you to add something relevant in the email subject like where it comes from.
- Email footer is optional.
- It is recommended to use the "Test email alert" button to ensure email settings are correct.

Once email settings are configured, get back to the "Expiration check general settings" tab and use the "Test alert with forced date" button, specifying a date (default is today+5d) that is less than the number of days in the future you specified (14 days by default) to ensure an alert will be created and run the test:

A popup will appear with the test results:



The received HTML email looks like this:

[CHARON-WIN10-LAB] License expiration check

This message was sent with High importance.

CM Charon Monitoring
To: Bruno Miretti

Mon 07-Nov-22 15:49

Error alert

Time of event: 07-Nov-2022 15:49:32
Hostname: WIN10-MAIN

Message:

Forced expiration date: 12-Nov-2022

License keyid: 655234219, number 1003953, License Dongle (Local), host win10-main (this host)

[MAJOR] CHARON-AXP: license will expire in 5 days.
[MAJOR] CHARON-VAX: license will expire in 5 days.
[MAJOR] CHARON-AXP/SMA VAR all Signatures for Windows and Linux x64: license will expire in 5 days.
[MAJOR] CHARON-SSP/4M, CHARON-SSP/4U, CHARON-SSP/4U+, CHARON-SSP/4V, CHARON-SSP/4V+ for Linux x64: license will expire in 5 days.
[MAJOR] Charon-PA9-32-L1: license will expire in 5 days.
[MAJOR] Charon-PA9-64-L4: license will expire in 5 days.
[MAJOR] Charon-PA3-L4: license will expire in 5 days.

License keyid: 340823357928523443

[MAJOR] HASP key not found or of improper type.
[MAJOR] This Software License may be in cloned state. Please check.
*To do so, run 'Charon License Utility', click on the 'Sentinel Admin Control Center' button and check for cloned licenses in the 'Sentinel Keys' option.
If a Software License is detected as 'Cloned', please:*
1) Click on the 'Software License removal' button and remove it.
2) If needed, generate a new fingerprint: click on the 'License update utility' button and select 'Installation of new protection key'.
3) Send the generated .c2v file to Stromasys.
4) Wait for Stromasys to send you back a .v2c file.
5) Apply the license update (.v2c file) using the same utility (select 'Apply License File' tab).

Geneva Lab

This message is sent from an account we use for sending messages only. Please do not reply.
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Reply Forward

Browse HASP log files folder

This button appears only if "Write an Access Log File" and/or "Write an Error Log File" option are/is checked in the Sentinel Admin Control Center / Configuration option.

It opens the folder "C:\Program Files (x86)\Common Files\Aladdin Shared\HASP" using explorer.exe.