

CHARON on Windows - Charon Log Monitor

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This document relates to Charon Log Monitor version 1.4 dated 18-Oct-2022, version 1.5 dated 14-Nov-2022 and version 1.6 dated 18-Jan-2023. To get the download link, please contact us.

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Introduction

The Charon Log Monitor is a utility that monitors the Charon emulator session log files and sends alerts in case a warning or error message is detected. It can also send alerts for informational messages when the emulator is started or properly stopped, when a CPU BUGCHECK or a CPU Halted message is detected or even if someone connects or disconnects from the emulator console.

It can also send alerts in case of Charon emulator service state change, if the emulator log file is greater than a specified value, if the virtual machine (emulator) configuration file has been updated and if the emulator executable file is not present (placed in quarantine by an antivirus software for example).


Alerts can either be an entry added in the Windows Application Events log file (source = CharonLogMonSVC), an email or a .BAT or .PS1 custom script. A mechanism can be set in place to stop sending alerts in case too many alerts are sent during a specified interval.

Prerequisites

- **Charon versions before 4.8 are not supported.**
- The utility must be started with "Run as Administrator"
- During upgrade, it is possible the first attempt to stop the service will fail (due to timeout). If this occurs, just retry stopping the CharonLogMonSVC service and its installation will continue normally
- **PowerShell 4.0 minimum, 5.1 recommended***
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)

 The utility has been tested on Windows 10, 11, Server 2012 R2, Server 2016, Server 2019 and Server 2022 with Charon-AXP/VAX/PDP.

 If it is installed on Windows 7 or Windows Server 2008 R2, storing the email account password will not work due to missing features with these old versions of Windows. Use custom script in this case.

Usage

Once installed, by default in "C:\Program Files\CHARON\Charon Log Monitor", a Charon Log Monitor shortcut is placed on the desktop and in the Windows start menu.

1 - Open the Charon Log Monitor interface

2 - Install the service

Charon Log Monitor V1.4

Log monitoring service
State: **Running** Version: 1.4.61.0
Uptime: 0d 00:04:14

Virtual machine(s) Settings #1 Settings #2 Email settings Service log

Name	Emulator	Uptime	Monitoring
as1000	AlphaServer_1000		
ds20vms	AlphaServer_DS20		
ES45	AlphaServer_ES45		
pluto	AlphaServer_4100		Enabled, Active
vax4106	VAX_4000_Model_106		
vx3198	MicroVAX_3100_Model_98		

Notes

Details

Configured log file:

Monitoring log file:

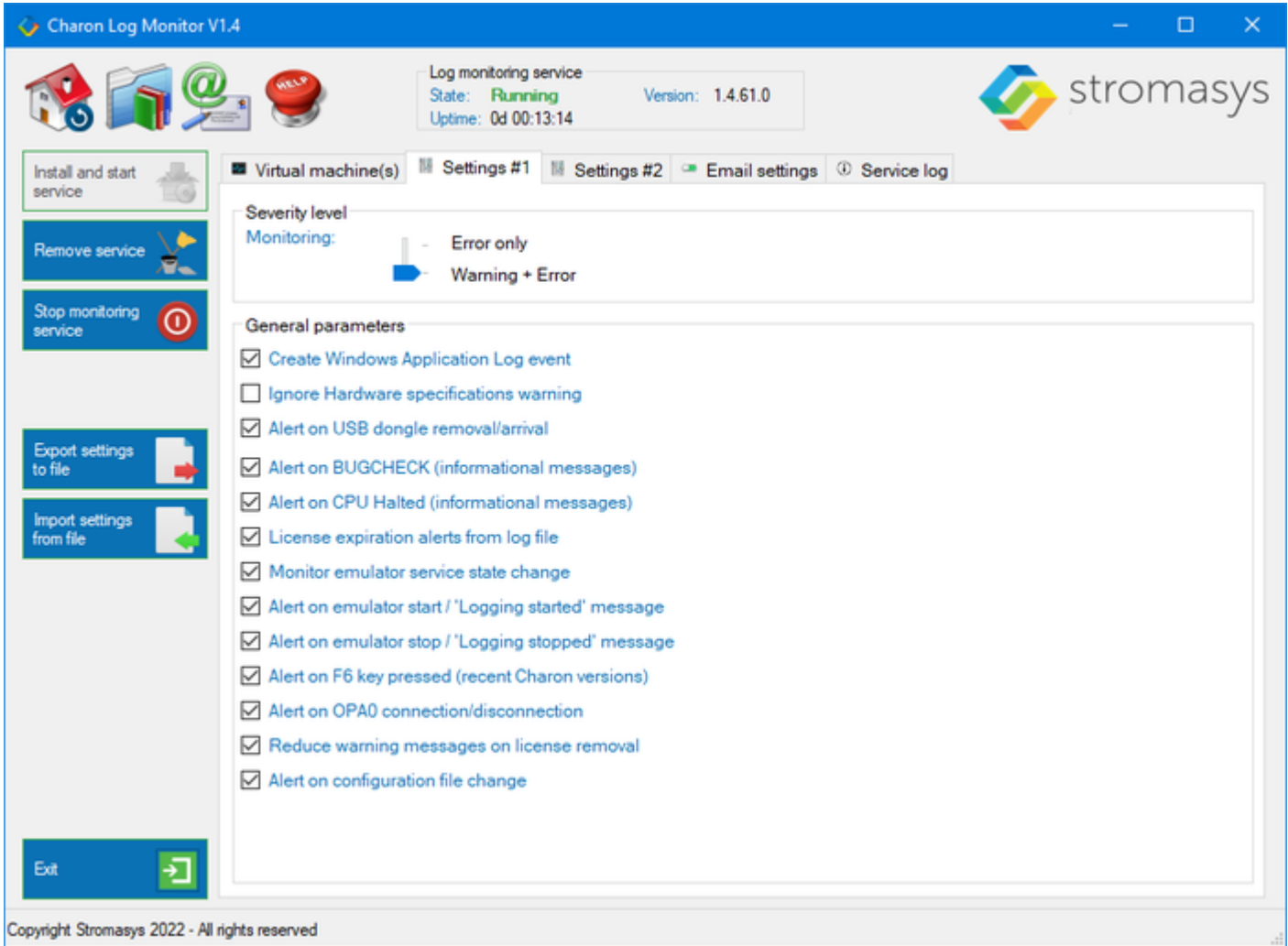
Last entry processed in log file: -

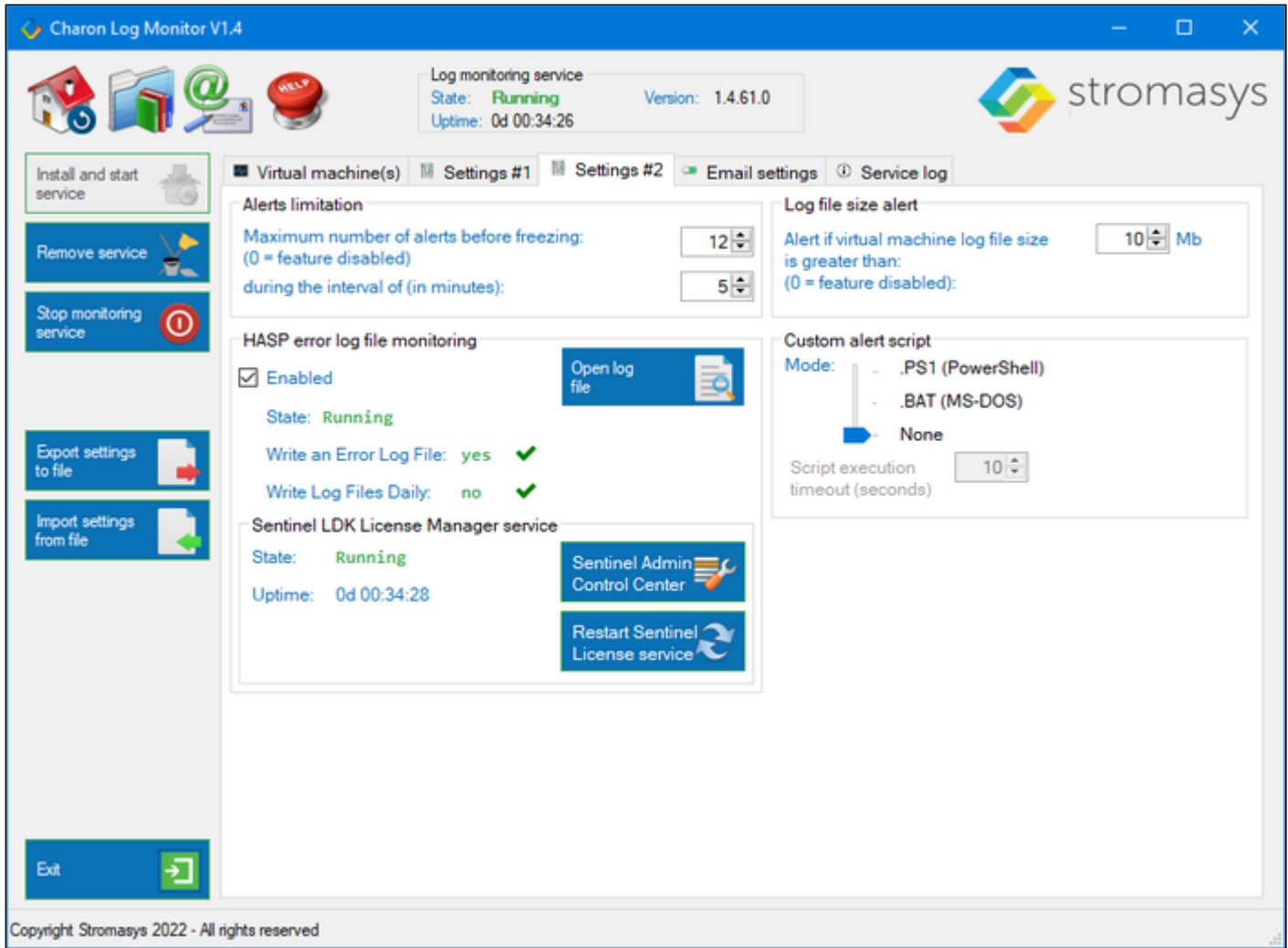
Counters since startup: Warning: - License: - Error: -

Exit

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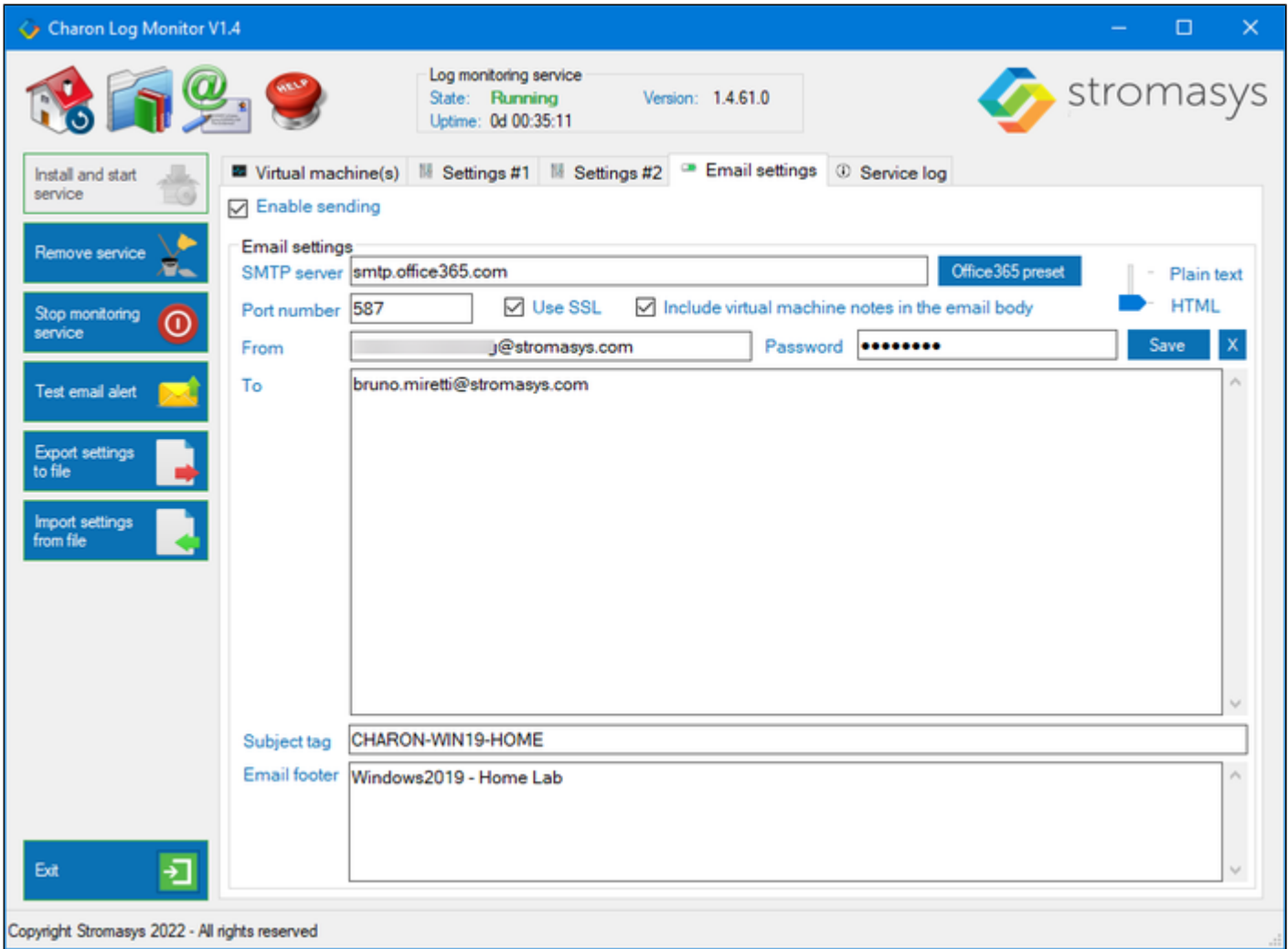
3 - Define the settings from the settings tabs: what you want to monitor and if you want Windows Application Events to be generated and/or a customer . PS1 or .BAT script to be executed + several other options you can activate





💡 If a .BAT or .PS1 script needs to be executed, a button will appear to edit the script. If the script does not exist, a skeleton script will be created. It is located in the Charon Log Monitor installation folder.

4 - If needed, you can use the Email settings tab to specify who you want to send emails to and from who. If the sender account needs a password, you'll need to click the "Save" button (does not work with PowerShell 4.0, 5.1 only). It is recommended to use the "Test email alert" button to ensure emails are correctly sent. If the test email is not received, please check the service log from the "Service log" tab.



? The password is encrypted and saved in the registry. It is valid for the local machine only. If it needs to be updated, you'll need to empty the password text box and type it again.

💡 If the email mode is HTML, the email footer can contain HTML tags

5 - Go to the Virtual Machines tab and select one virtual machine. Note mouse hovering on the virtual machine name displays several information:

The screenshot shows the Charon Log Monitor V1.4 application window. The title bar reads "Charon Log Monitor V1.4". The interface includes a top navigation bar with icons for home, folders, email, and help. A status box indicates "Log monitoring service" is "Running" with "Version: 1.4.61.0" and "Uptime: 0d 00:39:57". The "stromasys" logo is in the top right.

On the left side, there are three buttons: "Install and start service", "Remove service", and "Stop monitoring service". Below these is an "Exit" button.

The main area is titled "Virtual machine(s)" and contains a table with columns: Name, Emulator, Uptime, and Monitoring. The table lists several VMs, with "pluto" selected and highlighted in blue. A tooltip is displayed over the "pluto" row, providing the following information:

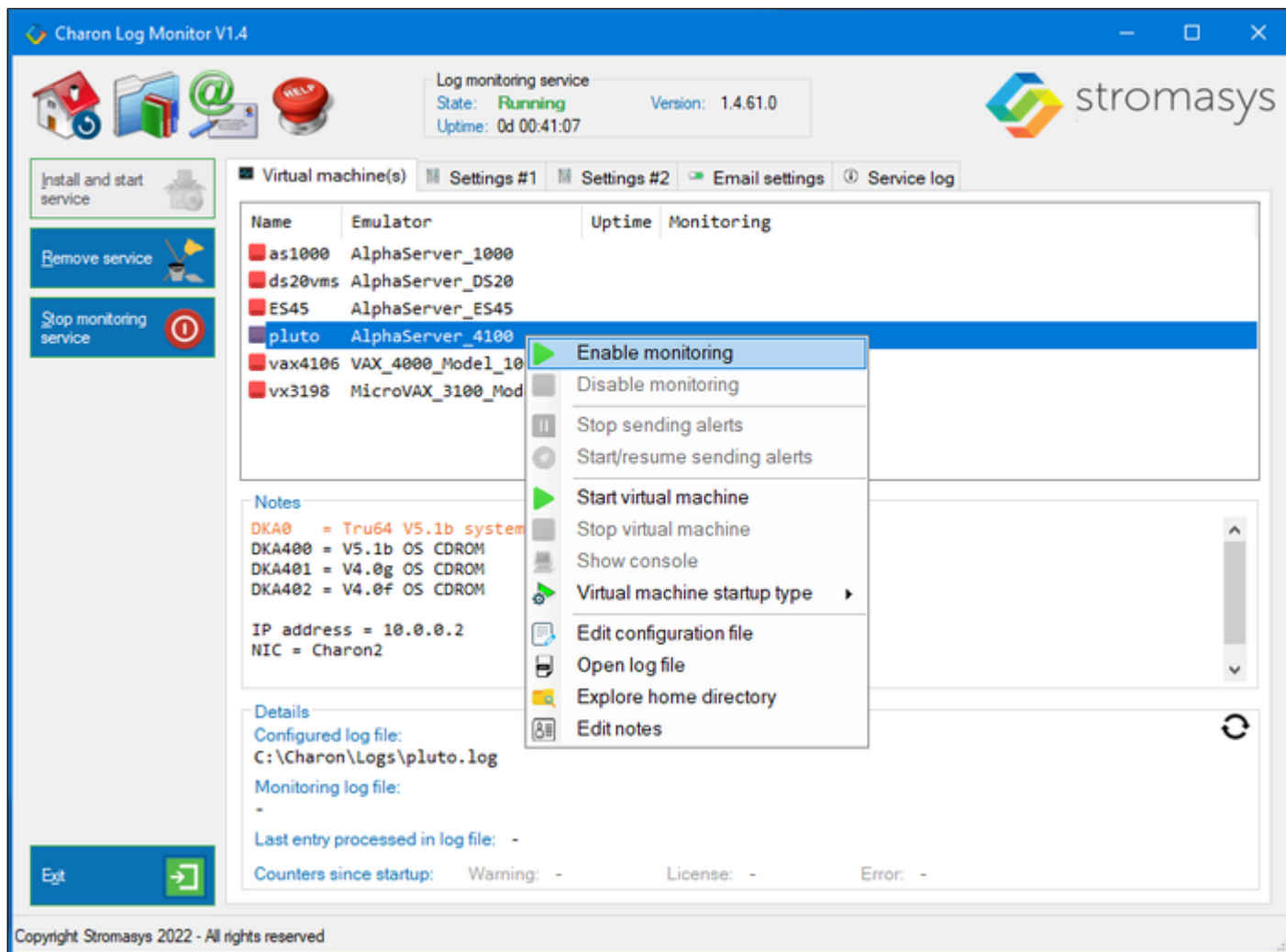
- Description:** Service 'pluto' is Stopped. Startup type: Manual. Version: 4.12.21003
- Monitoring:** Disabled

Below the table, there are sections for "Notes" (listing DKA00, DKA400, DKA401, DKA402), "Details" (showing log file paths: C:\Charon\Logs\pluto.log), and "Counters since startup" (Warning: -, License: -, Error: -).

At the bottom left, it says "Copyright Stromasys 2022 - All rights reserved".

💡 Virtual machines must have been created using the Charon Virtual Machine Manager utility.

Right click on one of them to either enable/disable log monitoring or start/stop the emulator, show the console, edit the .cfg file (if notepad++ is installed, it will use it otherwise it's notepad), open the log file, explore the home directory, etc..



Notes:

- A double click on a virtual machine name opens the latest log file
- A double click on the "Notes" box for a virtual machine opens the "Edit notes" option
- A circle icon in the details box means the log file is using the log rotation mechanism (highly recommended). Mouse hovering on this icon shows the max file size and rotation period if defined.
- Other warning icons can be displayed if:
 - The log counters are enabled or
 - The log file size is greater than the limit specified or
 - The log method is set to overwrite (not recommended) or
 - The configuration file has been updated after the emulator was started (an emulator restart is required for the changes to be taken into account)
- If alerts have been suspended, either manually or due to the limit reached, resuming sending alerts must be done manually

Example:

The screenshot shows the Charon Log Monitor V1.4 application window. The title bar reads "Charon Log Monitor V1.4". The interface includes a top navigation bar with icons for home, folders, email, and help. A status box indicates "Log monitoring service" is "Running" with "Version: 1.4.61.0" and "Uptime: 0d 00:43:42". The "stromasys" logo is in the top right.

On the left, there are three buttons: "Install and start service", "Remove service", and "Stop monitoring service". The main area has tabs for "Virtual machine(s)", "Settings #1", "Settings #2", "Email settings", and "Service log".

The "Virtual machine(s)" tab displays a table:

Name	Emulator	Uptime	Monitoring
as1000	AlphaServer_1000		
ds20vms	AlphaServer_DS20		
ES45	AlphaServer_ES45		
pluto	AlphaServer_4100	0d 00:01:09	Enabled, Active
vax4106	VAX_4000_Model1_106		
vx3198	MicroVAX_3100_Model1_98		

Below the table is a "Notes" section with the following text:

DKA0 = Tru64 V5.1b system disk ▲
DKA400 = V5.1b OS CDROM
DKA401 = V4.0g OS CDROM
DKA402 = V4.0f OS CDROM

IP address = 10.0.0.2
NIC = Charon2

The "Details" section shows:

Configured log file:
C:\Charon\Logs\pluto.log

Monitoring log file:
C:\Charon\Logs\pluto-2022-10-18-11-14-16-000000000.log

Last entry processed in log file: 18-Oct-2022 11:14:37

Counters since startup: Warning: 0 License: 0 Error: 4

A "Caution" button is visible next to a refresh icon. A blue arrow points from this button to a tooltip box that reads:

Description
The configuration file has been updated after the virtual machine was started.
Changes will be taken into account upon emulator restart

At the bottom left, there is an "Exit" button. The footer text reads "Copyright. Stromasys 2022 - All rights reserved".

HTML email example

[CHARON-WIN19-HOME] pluto - Error message

 This message was sent with High importance.



Charon Monitoring

Mon 02-May-22 15:04

To: Bruno Miretti



Error alert

Time of event: 02-May-2022 15:04:21

Hostname: WIN2019BM

Virtual machine: pluto

Log file: C:\Charon\Logs\pluto-2022-05-02-15-03-52-000000000.log

Message:

20220502:150355:ERROR:2:000001BD:scsi_cdrom(789): (3) The system cannot find the path specified. : PKA_4_1:
Failed to connect to F:\Tru64\V4.0Gr1530_01.iso.

Notes:

DKA0 = Tru64 V5.1b system disk

DKA400 = V5.1b OS CDROM

DKA401 = V4.0g OS CDROM


DKA402 = V4.0f OS CDROM

IP address = 10.0.0.2

NIC = Charon2

Windows2019 - Home Lab

[Reply](#) | [Forward](#)


 To remove the "Notes" part in the email body, uncheck the related option from the "Email settings" tab.

Windows Application Events example

```
PS C:\Users\Administrator> Get-EventLog -LogName Application -Source CharonLogMonSVC -Newest 15
```

Index	Time	EntryType	Source	InstanceID	Message
8330	May 03 09:57	Error	CharonLogmonSVC	12	pluto: state is Stopped.
8329	May 03 09:57	Error	CharonLogmonSVC	586	pluto: Logging stopped.
8327	May 03 09:54	Information	CharonLogmonSVC	1050	pluto: OPA0: disconnected
8326	May 03 09:53	Warning	CharonLogmonSVC	14	pluto: configuration file has been updated after service was started on 03-May-2022 09:52:04
8325	May 03 09:52	Warning	CharonLogmonSVC	1049	pluto: OPA0: connected
8324	May 03 09:52	Error	CharonLogmonSVC	445	pluto: 20220503:095207:ERROR:2:000001BD: scsi_tape.(810): (3) The system cannot find the path specified. : PKA_5_0: Fai...
8323	May 03 09:52	Error	CharonLogmonSVC	445	pluto: 20220503:095207:ERROR:2:000001BD: scsi_cdrom(789): (3) The system cannot find the path specified. : PKA_4_2: Fai...
8322	May 03 09:52	Error	CharonLogmonSVC	445	pluto: 20220503:095207:ERROR:2:000001BD: scsi_cdrom(789): (3) The system cannot find the path specified. : PKA_4_1: Fai...
8321	May 03 09:52	Error	CharonLogmonSVC	445	pluto: 20220503:095207:ERROR:2:000001BD: scsi_cdrom(789): (3) The system cannot find the path specified. : PKA_4_0: Fai...
8320	May 03 09:52	Information	CharonLogmonSVC	589	pluto: Using license 7003444...
8319	May 03 09:52	Warning	CharonLogmonSVC	589	pluto: 20220503:095204:WARN :1:0000024D: licenseman(1993): Failed to log in to the Sentinel HASP key: "879642840".
8318	May 03 09:52	Error	CharonLogmonSVC	589	pluto: 20220503:095204:ERROR:2:0000024D: licenseman(2003): HASP runtime (50): Unable to locate any Feature matching scope.
8317	May 03 09:52	Information	CharonLogmonSVC	585	pluto: Logging started.
8316	May 03 09:52	Information	CharonLogmonSVC	10	pluto: state is Running.
8315	May 03 09:52	Warning	CharonLogmonSVC	11	pluto: state is StartPending.

Tips

- Right clicking anywhere but the virtual machine list box will display About and Release Notes
- Mouse hovering on virtual machines names, buttons and icons displays additional information and help
- It is also possible to export and import general and email settings for ease of deployment ( the email account password will not be exported)