

Release Notes

Chromeleon 7 Chromatography Data System

Hotfix 48782 for Chromeleon 7.2.8 • August 2020

Document Revision 2

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Revision	Date	Comment
1	July 2020	Initial Hotfix Release
2	August 2020	Added instructions for installation on 247 Instrument Controllers

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1 Introduction

This document describes the installation and compatibility of **Hotfix-48782 for Chromeleon 7.2.8**, which resolves an issue which can cause the Chromeleon Console to incorrectly report 'License server unavailable'.

Two different issues were found to result in this error message being incorrectly displayed on a Chromeleon client. Both issues are resolved by this hotfix.

2 Resolved Issues

ID	Description
46797	Licensing: In an Enterprise environment, occasionally a client system would incorrectly think that the software license has expired.
48782	Licensing: In an Enterprise environment, occasionally a client system would incorrectly report that the license server was unavailable.

3 Installation

3.1 Compatibility

Hotfix-48782 for Chromeleon 7.2.8 is compatible with Chromeleon 7.2.8 only. Support is included for installations on both PCs and 247 Instrument Controllers (running Win 7)

3.2 Installation Instructions for PCs and Servers

This section describes the process for installing this hotfix on a **Chromeleon Domain Controller, Chromeleon Data Vault Server, Chromeleon Client, Chromeleon IPC or Chromeleon Workstation**. Refer to section 3.3 for installation of this hotfix on a **Thermo Scientific 247 Instrument Controller**.

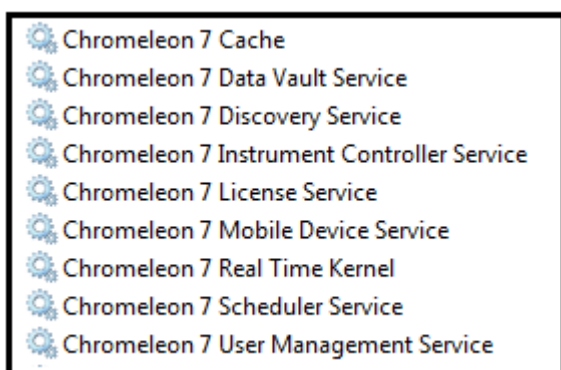
3.2.1 Prerequisites

Prior to installation, make sure you have the following:

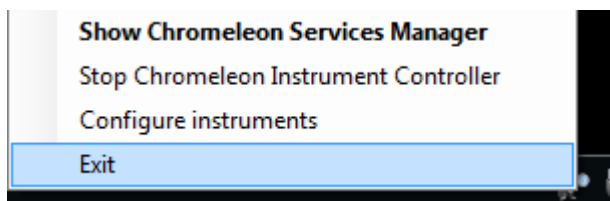
- Chromeleon 7.2.8 installed
- Local administrative privileges
- Hotfix-48782 for Chromeleon 7.2.8.zip

3.2.2 Installation Instructions

1. Ensure that Chromeleon is closed.
2. Open Services.msc and stop all the following Chromeleon services



3. Right click on the Charlie icon in the task tray and select **Exit**



4. Create a folder on the Windows Desktop and unzip the contents of **Hotfix-48782 for Chromeleon 7.2.8.zip** into that folder.
5. Copy the following files from the desktop folder into C:\Program Files (x86)\Thermo\Chromeleon\bin, overwriting the existing files:
 - Dionex.AdminServices.dll
 - Dionex.Chromeleon.Common.dll
 - log4net.config
 - ServiceHost.exe
6. If you are installing the hotfix on a Windows 10 based computer, right click on the file **UnblockHotfix.bat** and select **Run as Administrator**.
7. Restart the PC

3.2.3 Verification

1. Perform a Chromeleon Station IQ:
(Start Menu) > All Programs > Thermo Chromeleon 7 > Station IQ > Station IQ
2. The report will show 4 Errors and no Warnings for the replaced files. Please verify that the 'actual' fingerprints match the values below:

<p>🔗 C:\Program Files (x86)\Thermo\Chromeleon\bin\Dionex.AdminServices.dll: The expected value of 'Fingerprint' is '94EB639404D0CC44' but actually is '96E76ED3DA1C9135'.</p>
<p>🔗 C:\Program Files (x86)\Thermo\Chromeleon\bin\Dionex.Chromeleon.Common.dll: The expected value of 'Fingerprint' is '01EE648CDF1CB2FE' but actually is '8A5A7E35725009DB'.</p>
<p>🔗 C:\Program Files (x86)\Thermo\Chromeleon\bin\log4net.config: The expected value of 'Fingerprint' is 'B7F4586C109CAEAD' but actually is '15495B5BF6FA55BE'.</p>
<p>🔗 C:\Program Files (x86)\Thermo\Chromeleon\bin\ServiceHost.exe: The expected value of 'Fingerprint' is 'B751308D7494CCFC' but actually is '4F5395F09160A761'.</p>

3.3 Installation Instructions for Thermo Scientific 247 Instrument Controller

This section describes the process for installing this hotfix on a **Thermo Scientific 247 Instrument Controller** running Windows Embedded Standard 7 (WES7) firmware. For installation instructions for a **Chromeleon Domain Controller**, **Chromeleon Data Vault Server**, **Chromeleon Client**, **Chromeleon IPC** or **Chromeleon Workstation** refer to section 3.2.

3.3.1 Windows Embedded Standard 7

The security model of the Windows Embedded Standard 7 (WES7) firmware prevents unauthorised software installation on the 247 Instrument Controller. In order to install **Hotfix-48782 for Chromeleon 7.2.8** onto a WES7 247 Instrument Controller, an installation utility is provided.

The following steps can be performed remotely using Windows Remote Desktop, or directly on the 247 IC by connecting a monitor, mouse and keyboard. If using Remote Desktop, you will need to reconnect to the 247 IC following each reboot.

3.3.1.1 Prerequisites for WES7 247 IC

Prior to installation, make sure you have the following:

- Windows Embedded Standard 7 (WES7) firmware TDS 5.33a with Chromeleon 7.2.8 pre-installed
- Chromeleon Post-installation step has been run and the 247 IC is connected to a Chromeleon Domain
- 247 IC is logged in with an account with local administrative privileges
- 247PatchUtility_Hotfix_48782_CM7.2.8.exe

3.3.1.2 Hotfix Installation for WES7 247 IC

1. Ensure the prerequisites above have been met.
2. Copy the 247PatchUtility executable to the following folder on the 247 Instrument Controller
C:\Windows\Temp
3. Right-click on the executable and select the “Run as Administrator” option.
4. A Command window will appear, the files will be extracted for installation, and the 247IC will reboot.
5. Following reboot, log into the 247 IC using an account with local Administrator privileges. Immediately upon log in, the installation process will automatically continue.
6. A Command window will appear which will wait for Chromeleon services to timeout, stop all Chromeleon services, install the files, and then automatically reboot the 247 IC again. During this stage, you may briefly see some “service” error messages in the command window. These are an expected part of the installation process. No user input is required during this stage.
7. Following this second reboot, log into the 247 IC using an account with local Administrator privileges.
8. The 247 IC will automatically complete the installation process and will perform a final reboot. During this stage you might not see any activity on screen between logging in and the reboot.
9. Following this third reboot, log into the 247 IC using an account with local Administrator privileges.
10. The installation has now completed.
11. Browse to the folder where the patch utility was copied in step 2.
12. Double-click on 247HotfixLog. In the “Windows can’t open this file” dialog, choose the “Select a program from a list of installed programs” option and click OK.
13. In the “Open with” dialog, click the Browse button and browse to **C:\Windows\System32\notepad.exe**. Click OK to open the log file in Notepad.
14. Scroll to the bottom of the log file and confirm that all three phases of the installation were run by locating the Phase3 section of the log.

3.3.1.3 Verification for WES7 247 IC

1. Perform a Chromeleon Station IQ:
(Start Menu) > All Programs > Thermo Chromeleon 7 > Station IQ > Station IQ
2. The report will show a total of 85 errors and 0 warnings.

State	Errors	Warnings	Comment
Before Hotfix	81	0	Please refer to Appendix A for a list of the expected errors
After Hotfix	85	0	In addition to the 81 errors reported above before the hotfix is installed, there will be 4 additional errors as described below. Please verify that the 'actual' fingerprints match the values below:

Errors
<p>⚙ C:\Program Files (x86)\Thermo\Chromeleon\bin\Dionex.AdminServices.dll: The expected value of 'Fingerprint' is '94EB639404D0CC44' but actually is '96E76ED3DA1C9135'.</p> <p>⚙ C:\Program Files (x86)\Thermo\Chromeleon\bin\Dionex.Chromeleon.Common.dll: The expected value of 'Fingerprint' is '01EE648CDF1CB2FE' but actually is '8A5A7E35725009DB'.</p> <p>⚙ C:\Program Files (x86)\Thermo\Chromeleon\bin\log4net.config: The expected value of 'Fingerprint' is 'B7F4586C109CAEAD' but actually is '15495B5BF6FA55BE'.</p> <p>⚙ C:\Program Files (x86)\Thermo\Chromeleon\bin\ServiceHost.exe: The expected value of 'Fingerprint' is 'B751308D7494CCFC' but actually is '4F5395F09160A761'.</p>

Appendix A: IQ report for WES7 247 Instrument Controller

The 247 Instrument Controller is designed to be used without user interaction so the installation of Chromeleon on the WES7 247 IC has been pre-configured to remove unnecessary files and services. Consequently, when the Station IQ is run, the report contains Errors and Warnings which are expected and do not constitute a failed installation. The following table lists the expected Errors and Warnings which will be found in the IQ report of a 247 IC with WES7 firmware and Chromeleon 7.2.8 *before* installation of the hotfix.

A.1 IQ report errors *before* installing hotfix

#	IQ report Error/Warning	Description/justification
Report Summary section		
1	Installation qualification found 81 errors	These errors are expected on a clean WES7 247. See below for description/justification of each Error.
Errors section (Services) – 2 entries		
1.	Chromeleon 7 Cache: The expected value of 'Startup type' is 'Automatic' but actually is 'Disabled'.	WES7 247 IC security does not support Cache service so it is set to Disabled
2.	Chromeleon 7 Cache: The expected value of 'Service status' is 'Running' but actually is 'Stopped'.	WES7 247 IC security does not support Cache service so it is set to Disabled
Errors section (Missing Files) – 79 entries		
1.	C:\Program Files (x86)\Thermo\Chromeleon\bin\InstallationGuides\ICS-4500\en\Videos\Column_Installation.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Videos are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
2.	C:\Program Files (x86)\Thermo\Chromeleon\bin\InstallationGuides\ICS-4500\en\Videos\CRD_Installation.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Videos are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
3.	C:\Program Files (x86)\Thermo\Chromeleon\bin\InstallationGuides\ICS-4500\en\Videos\CR-TC_Installation.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Videos are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
4.	C:\Program Files (x86)\Thermo\Chromeleon\bin\InstallationGuides\ICS-4500\en\Videos\EGC_Installation.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Videos are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
5.	C:\Program Files (x86)\Thermo\Chromeleon\bin\InstallationGuides\ICS-4500\en\Videos\ERS_Installation.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Videos are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
6.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-AS-Betrieb-DOC4828-5001-DE-3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
7.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary

	Guides\Man-LC-VQ-AS-Operation-DOC4828-5001-EN-3-0.pdf: The file is not installed on the computer.	and are removed as part of the installation on WES7 to reduce software footprint.
8.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-AS-Utilisation-DOC4828-5001-FR-3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
9.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-CAD-Betrieb-DOC4820-8401-DE-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
10.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-CAD-Operation-DOC4820-8401-EN-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
11.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-CAD-Utilisation-DOC4820-8401-FR-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
12.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-Charger-Betrieb-DOC4829-0001-DE-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
13.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-Charger-Operation-DOC4829-0001-EN-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
14.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-Charger-Utilisation-DOC4829-0001-FR-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
15.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-DADF-Operation-DOC4820-8302-EN-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
16.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-DADH-Betrieb_DOC4820-8301-DE-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
17.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-DADH-Operation-DOC4820.8301-EN-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
18.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-DADH-Utilisation-DOC4820-8301-FR-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
19.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-FLD-Betrieb-DOC4820-7901-DE-1-2.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.

20.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-FLD-Operation-DOC4820-7901-EN- 1-2.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
21.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-FLD-Utilisation-DOC4820-7901-FR- 1-2.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
22.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpF-Betrieb-DOC4820-4405-DE- 3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
23.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpF-Operation-DOC4820-4405- EN-3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
24.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpF-Utilisation-DOC4820-4405- FR-3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
25.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Betrieb-DOC4820-4401-DE- 2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
26.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Betrieb-DOC4820-4411-DE- 1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
27.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Operation-DOC4820-4401- EN-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
28.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Operation-DOC4820-4411- EN-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
29.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Utilisation-DOC4820-4401- FR-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
30.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-PumpH-Utilisation-DOC4820-4411- FR-1-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
31.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-System-Betrieb-DOC4820-3601-DE- 3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
32.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary

	Guides\Man-LC-VQ-System-Operation-DOC4820-3601-EN-3-0.pdf: The file is not installed on the computer.	and are removed as part of the installation on WES7 to reduce software footprint.
33.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-System-Utilisation-DOC4820-3601-FR-3-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
34.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-TCC-Betrieb_DOC4827-3201-DE-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
35.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-TCC-Operation_DOC4827-3201-EN-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
36.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-TCC-Utilisation_DOC4827-3201-FR-2-0.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
37.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-VWD-Betrieb-DOC4820-7701-DE-1-1.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
38.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-VWD-Operation-DOC4820-7701-EN-1-1.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
39.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\Man-LC-VQ-VWD-Utilisation-DOC4820-7701-FR-1-1.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
40.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_2G_Pumps_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
41.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_2G_Pumps_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
42.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_ACC-3000_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
43.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_ACC-3000_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
44.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_DAD-	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary

	3000_Bedienungsanleitung.pdf: The file is not installed on the computer.	and are removed as part of the installation on WES7 to reduce software footprint.
45.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_DAD-3000_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
46.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_ECD-3000RS_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
47.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_ECD-3000RS_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
48.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_FLM-3x00_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
49.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_FLM-3x00_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
50.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_NanoCap_Systemmanual_D.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
51.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_NanoCap_Systemmanual_E.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
52.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_PDA-3000_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
53.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_PDA-3000_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
54.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_Pumps_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
55.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary

	Guides\UltiMate3000_Pumps_OperatingInstructions.pdf: The file is not installed on the computer.	and are removed as part of the installation on WES7 to reduce software footprint.
56.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3000(RS)_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
57.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3000(RS)_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
58.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3200_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
59.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3200_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
60.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3x00_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
61.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_TCC-3x00_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
62.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_VWD-3x00_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
63.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_VWD-3x00_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
64.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_WPS-3000PL_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
65.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_WPS-3000PL_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.

66.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_WPS-3000SL+RS_Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
67.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000_WPS-3000SL+RS_OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
68.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-AFC-3000-Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
69.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-AFC-3000-OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
70.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-FLD-3000-Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
71.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-FLD-3000-OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
72.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-NCS-3x00-Bedienungsanleitung.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
73.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\UltiMate3000-NCS-3x00-OperatingInstructions.pdf: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
74.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\ICS-4500\en\Videos\Burping.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
75.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\ICS-4500\en\Videos\Check_Valve_replacement.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
76.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary

	Guides\ICS-4500\en\Videos\Column_Cleaning.mp4: The file is not installed on the computer.	and are removed as part of the installation on WES7 to reduce software footprint.
77.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\ICS-4500\en\Videos\Cutting_Tube.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
78.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\ICS-4500\en\Videos\ERS_Cleaning.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.
79.	C:\Program Files (x86)\Thermo\Chromeleon\bin\Troubleshooting Guides\ICS-4500\en\Videos\Priming.mp4: The file is not installed on the computer.	247 IC is designed for non-user interaction. Troubleshooting guides are therefore not necessary and are removed as part of the installation on WES7 to reduce software footprint.

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