

MS Installation Guide

Chromeleon 7.2

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1 About the Documentation

1.1 Document Conventions

The following formatting is used throughout the document to indicate text with special importance.

A Caution: Indicates text that must be followed carefully to avoid potential problems.

Note: Indicates information of special interest.

Tip: Indicates information that will help you to use the software more efficiently.

1.2 Other Documents

Other documents provided with Chromeleon will help you to learn more about the Chromeleon software. Their scope is described in the *Document Overview*, which is included with the Chromeleon installation media in printed form. The documents are also available in electronic form on the installation disk in the *Documents* folder.

Tip: The Glossary describes Chromeleon-specific terms and common abbreviations used throughout the documentation.

2 Introduction

Starting with version 7.2, the Chromeleon CDS adds supports for Mass Spectrometer instrument control and data processing.

The required mass spectrometry drivers and associate components for MS control are shipped as separate installers and can be found in the **Drivers** folder of the Chromeleon DVD. Since the setup files are not part of the automatic Chromeleon installation, they have to be installed separately.

Note: These additional MS Control components are not required for MS data processing; they are only required for instrument control and instrument method viewing.

This guide provides instructions for installing MS control software on stand-alone Chromeleon workstations as well as in Client / Server installations. The following installation scenarios are covered in particular:

- Workstation installation on a PC that has no MS Software
- Workstation installations on a PC with Xcalibur / TraceFinder
- Client / Server installations

This guide also describes:

- Hardware and software requirements for installing Chromeleon 7
- Software and data compatibility with previous Chromeleon versions

Note: If you are installing multiple workstations that will be networked together, or adding a station to an existing networked installation, please contact the Thermo Fisher Scientific Service for Dionex Chromatography Software for support.

3 System Requirements / Compatibility

3.1 Hardware

3.1.1 Supported MS Instruments

Chromeleon 7.2 provides support for control of the following Thermo Scientific MS instruments:

- ISQ (Classic) Single Quadrupole Mass Spectrometer
- ISQ-QD Single Quadrupole Mass Spectrometer
- TSQ 8000 Triple Quadrupole Mass Spectrometer

3.2 Software

3.2.1 Supported Operating Systems

Chromeleon MS instrument control is designed to work on the following Windows operating systems:

- Microsoft Windows 7
- Microsoft Windows Vista
- Microsoft Windows XP
- Microsoft Windows Server operating systems

For more details, refer to the Chromeleon 7.2 Installation Guide which is also available in the **Documents** folder on the Chromeleon DVD.

Note: MS data acquisition is <u>not</u> supported on PCs running Microsoft Windows Server operating systems.

3.3 Overview of Required Software Components

This chapter lists the software components that are required to control the MS and to view instrument methods using Chromeleon 7.2. The components have to be installed manually and can be found in the **Drivers** folder of the Chromeleon DVD.

3.3.1 Chromeleon 7.2

Chromeleon 7.2 offers extended functionality by providing support for Mass Spectrometer (MS) instrument control and data processing.

3.3.2 MS Drivers

Chromeleon 7.2 provides support of the Thermo Scientific ISQ Classic single-quadrupole MS, the ISQ-QD single-quadrupole MS and the TSQ-8000 triple-quadrupole MS

The Thermo MS drivers for controlling these instruments are provided in the **Drivers\Thermo ISQ** and **Drivers\Thermo TSQ8000** folder, respectively. Select the appropriate MS driver depending on whether you want to install it on a workstation or Server PC.

Driver	Purpose	
ISQ Client	 For use on a Client PC which will connect to an instrument PC No local instrument control Includes access to instrument methods 	
ISQ Server	 For use on the instrument PC to which the ISQ is connected Provides local instrument control Also includes all the Client functionality 	
TSQ8000 Client	 For use on a Client PC which will connect to an instrument PC No local instrument control Includes access to instrument methods 	
TSQ8000 Server	 For use on the instrument PC to which the TSQ8000 is connected Provides local instrument control Also includes all the Client functionality 	

3.3.3 Thermo Foundation Data System

Thermo Foundation[™] mass spectrometry data system, version 2.0 SP1 has to be installed. The **ThermoPlatform.exe** file is provided in the **Drivers\Thermo Foundation** folder on the Chromeleon 7.2 DVD.

3.3.4 NIST Demo MS Library

The demo version of the MS Spectra and search software can be installed optionally. The application is provided in the **NIST** folder on the Chromeleon 7.2 DVD.

4 Workstation Installation on a PC with no MS Software installed

The step-by-step description below is applicable to a PC with no version of DCMS^{Link}, Xcalibur, TraceFinder or any other Thermo MS software installed.

Step 1: Install Chromeleon 7.2

- 1. Insert the Chromeleon Distribution DVD.
- 2. In the Startup screen, select Install Chromeleon 7.2. If the Startup screen does not appear, navigate to the **\Autorun** folder and run **Autorun.exe**
- 3. Follow the prompts, rebooting if requested.

Step 2: Install Thermo Foundation 2.0 SP1

- 1. Insert the Chromeleon Distribution DVD
- 2. Navigate to the Drivers\Thermo Foundation folder and run ThermoPlatform.exe
- 3. Follow the prompts
- 4. Reboot after completion (even if not prompted)

Step 3: Install the Chromeleon MS Driver

- 1. Insert the Chromeleon Distribution DVD
- 2. Referring to the table below, navigate to the sub-folder and run the installers therein
- 3. Follow the prompts, rebooting if requested

MS Instrument	Location on Chromeleon DVD	Installer Name
ISQ	\Drivers\Thermo ISQ\Server	Setup.exe
TSQ8000	\Drivers\Thermo TSQ8000\Server	Setup.exe

Step 4 (optional): Install the NIST Demo MS Library

- 1. Insert the Chromeleon Distribution DVD
- 2. Navigate to NIST folder and run Setup.exe
- 3. Follow the prompts, rebooting if requested

Tip: Steps 2–4 are only required, if you want to perform actual MS data acquisition or method development.

5 Installation on a PC with Xcalibur / TraceFinder installed

5.1 Installation

Chromeleon 7.2 is validated for use on PCs that also have TraceFinder 3.0 installed. (TraceFinder is a layered application that uses portions of Xcalibur 2.2.)

Chromeleon 7.2 is *not* validated for us on PCs that have any other configurations of Xcalibur or other layered applications installed.

Notes:

- The procedure described below involves replacing the Xcalibur MS driver used by TraceFinder to a version that also supports Chromeleon 7.2.
- Because TraceFinder 3.0 and Chromeleon 7.2 use the same version of Thermo Foundation, there is no need to update the Foundation components.

Step 1: Uninstall the Xcalibur MS Driver

- 1. Remove the MS from the Xcalibur configuration
 - a) Launch the Xcalibur / Foundation Instrument configuration utility
 - b) Remove the MS instrument component from the Xcalibur instrument configuration

Save and exit.

2. Uninstall the existing version of the MS driver using:

WinXP: Control Panel >Add/Remove Programs

Win7: Control Panel > Programs and Features

Step 2: Install Chromeleon 7.2

- 1. Insert the Chromeleon Distribution DVD.
- 2. In the Startup screen, select **Install Chromeleon 7.2**. If the Startup screen does not appear, navigate to the **\Autorun** folder and run **Autorun.exe**
- 3. Follow the prompts, rebooting if requested.

Step 3: Install the Chromeleon MS Driver

- 1. Insert the Chromeleon Distribution DVD
- 2. Referring to the table below, navigate to the sub-folder and run the installers therein
- 3. Follow the prompts, rebooting if requested

MS Instrument	Location on Chromeleon DVD	Installer Name
ISQ	\Drivers\Thermo ISQ\Server	Setup.exe
TSQ8000	\Drivers\Thermo TSQ8000\Server	Setup.exe

Step 4 (optional): Install the NIST Demo MS Library

- 1. Insert the Chromeleon Distribution DVD
- 2. Navigate to **NIST** folder and run **Setup.exe**
- 3. Follow the prompts, rebooting if requested

Tip: Steps **3**–4 are only required, if you want to perform actual MS data acquisition or method development.

5.2 Using Xcalibur/TraceFinder and Chromeleon on the same PC

If you are using Xcalibur/TraceFinder and Chromeleon on the same PC, only *one* software package can be connected to the hardware at any given time.

To use Chromeleon:

- 1. Remove the GC and MS hardware drivers from the Xcalibur Instrument Configuration
- 2. After doing so, start the Chromeleon Instrument Controller

To use Xcalibur/TraceFinder:

- 1. First stop the Chromeleon Instrument Controller.
- 2. Then add the GC and MS hardware drivers to the Xcalibur Instrument Configuration

Note: The MS Control components are not required for MS data processing. They are only required for instrument control and instrument method viewing.

6 Client / Server Installations

Caution: Client / Server installations should only be performed by Chromeleon specialist. Also refer to the Chromeleon Enterprise Installation Guide.

6.1 Client PC Installation

The following procedure assumes a client PC without Xcalibur or TraceFinder installed.

Step 1: Install Chromeleon 7.2

- 1. Insert the Chromeleon Distribution DVD.
- 2. In the Startup screen, select **Install Chromeleon 7.2**. If the Startup screen does not appear, navigate to the **\Autorun** folder and run **Autorun.exe**
- 3. Follow the prompts, rebooting if requested.

Step 2 (optional): Install the Chromeleon MS Driver

- 1. Insert the Chromeleon Distribution DVD
- 2. Referring to the table below, navigate to the sub-folder and run the installers therein
- 3. Follow the prompts, rebooting if requested

MS Instrument	Location on Chromeleon DVD	Installer Name
ISQ	\Drivers\Thermo ISQ\Client	SingeQuadClient.Setup.msi
TSQ8000	\Drivers\Thermo TSQ8000\Client	TripleQuadClient.Setup.msi

Step 3 (optional): Install the NIST Demo MS Library

- 1. Insert the Chromeleon Distribution DVD
- 2. Navigate to **NIST** folder and run **Setup.exe**
- 3. Follow the prompts, rebooting if requested

Tip: Steps **3**–4 are only required, if you want to perform actual MS data acquisition or method development.

6.1.1 Other Installation Considerations

Caution: Xcalibur includes services that are incompatible with Windows Terminal Server or Citrix environments. Do *not* install Xcalibur on any PC used as a Windows Terminal Server or Citrix Server.

Caution: Do *not* use Windows Server based PCs as IPCs. The Foundation components have not been validated on Windows Server Operating Systems.

7 APPENDIX

The procedures described in this appendix should be considered advanced topics.

They assume knowledge beyond what is explicitly described in this appendix and should only be undertaken by qualified individuals.

7.1 Performance Improvements on PC with Xcalibur / TraceFinder

Chromeleon 7.2 is supported on PCs that also have Xcalibur and TraceFinder installed. However, Xcalibur includes a number of services that automatically load and run on PC startup. These services, which are not needed by Chromeleon, consume memory and may degrade system performance.

If Chromeleon will be used exclusively (or almost exclusively) on the PC, it may be desirable to disable the Xcalibur related services.

The following Xcalibur services are not used by Chromeleon and may be disabled using the Services.msc applet:

- ThermoFisher.Foundation.AcquisitionService
- Thermo.Foundation.Acquisition.Service.Monitor
- FinniganDatabaseService
- Finnigan Security Server
- FinniganSecurityService
- Finnigan Auto Log Off

Tip: Remember that these services must be re-enabled in order to run Xcalibur.

7.2 Uninstalling Xcalibur / TraceFinder

The following procedure describes how to completely uninstall Xcalibur and TraceFinder from a PC.

Step 1: Remove all components from the Xcalibur instrument configuration

- 1. Launch the Xcalibur Instrument Configuration utility
- 2. Remove the MS instrument component from the Xcalibur instrument configuration
- 3. Save and exit

Step 2: Uninstall the following components in order, rebooting as prompted

- 1. Uninstall the Xcalibur MS drivers
- 2. Uninstall the Xcalibur GC Devices
- 3. Uninstall Thermo Foundation
- 4. Uninstall TraceFinder
- 5. Uninstall Xcalibur

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