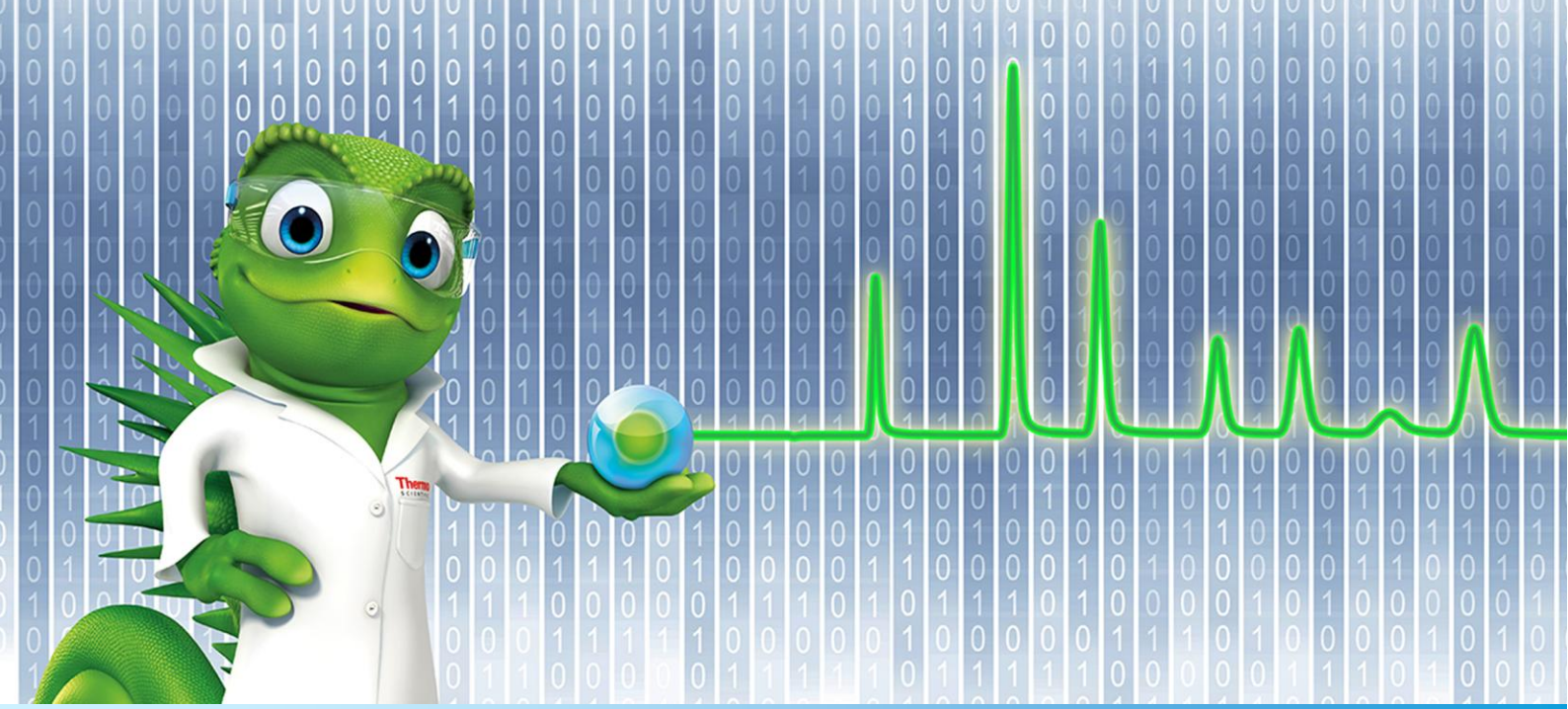

Release Notes

Chromeleon 7.2

Software Development Kit

Chromeleon 7.2 SR5 • March 2017

thermoscientific

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Table of Contents

1 Introduction 2

2 System Requirements and Compatibility 3

2.1 System Requirements 3

2.2 Compatibility with Previous Versions of the Chromeleon SDK 3

3 Other Documentation 4

4 Installation 5

5 What's New 6

5.1 Create and Edit Injection Queries [SWFR-1789] 6

5.2 Create Sequence From Worklist [SWFR-2351] 6

6 Resolved Issues 7

1 Introduction

Welcome to the Chromeleon 7.2 Software Development Kit (SDK). The SDK describes a programming interface that provides the means to create custom applications that can interact with users and with Chromeleon in a variety of ways, including:

- Providing a customized user interface experience
- Accessing data and metadata stored in Chromeleon Data Vaults
- Creating, modifying and submitting sequences for acquisition
- Processing acquired sequences and generating reports
- Working with chromatographic results
- Monitoring instrument status and managing acquisition queues

Broadly speaking, two types of applications may be developed with the SDK.

An in-process application operates as an extension to the Chromeleon 7 user interface itself. An in-process application adds a menu item or toolbar icon to the standard Chromeleon 7 user interface, which is used to invoke its functionality. In-process applications typically add additional functionality to the existing Chromeleon user interface.

An out-of-process application is an external program which makes use of the existing Chromeleon 7 assemblies to provide simplified access to Chromeleon functionality, without the need for the user to run an instance of Chromeleon. Out-of-process applications are often used to provide a simplified user interface, customized to a particular work environment. Because they have full access to data, results and instruments, an out-of-process application may also be used for a wide variety of data processing and instrument related tasks outside the normal spectrum of Chromeleon 7 operation.

The SDK includes conceptual overviews, an extensive class library reference, step-by-step procedures and sample code documenting the .NET Framework programming interface to the Chromeleon 7 Chromatography Data System software. It is intended for use by experienced software developers familiar with the Microsoft .NET Framework and Chromeleon 7.

2 System Requirements and Compatibility

2.1 System Requirements

In order to develop and run applications using this Software Development Kit, your system must have the following installed:

- Chromeleon 7.2 SR5
- Microsoft Visual Studio 2013 or higher

The hardware and operating system requirements for using this Software Development Kit are identical to those of the version of Chromeleon 7.2 you are using.

2.2 Compatibility with Previous Versions of the Chromeleon SDK

Chromeleon 7.2 SR5 uses Microsoft .NET Framework 4.6.1. Applications that have been developed with the Chromeleon 7.1 SDK or with previous versions of the Chromeleon 7.2 SDK need to be recompiled using Microsoft .NET Framework 4.6.1 in order to work with Chromeleon 7.2 SR5.

3 Other Documentation

Chromeleon is provided with many other documents that will help you to learn more about the software. Their scope is described in the Document Overview, which is delivered in printed form with the Chromeleon installation media, but also available in electronic form on the installation disk in the Documents folder.

Please refer to the Installation Guide for information regarding:

- System Requirements
- Supported Operating Systems and Databases
- Required Third-Party Software
- Compatibility with Previous Versions
- Installing and configuring the Chromeleon software

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

4 Installation

The required assemblies for the Chromeleon 7.2 Software Development Kit are automatically installed with the Chromeleon software itself. However, to install the documentation and sample code:

a. Insert the DVD into the drive. If the installer does not automatically start, use Windows Explorer to navigate to the DVD drive and double-click on “Setup.exe”

b. When the installation completes, reboot the PC if prompted to do so.

5 What's New

The Chromeleon 7.2 SR5 SDK implements a number of new features and additional options for existing functionality. This document can only give a short overview of these features. For more details, refer to the Online Help.

5.1 Create and Edit Injection Queries [SWFR-1789]

Until now, it was only possible to execute existing injection queries via the SDK. This release adds interfaces to create new queries and modify existing queries.

Implementation details may be found in the SDK online help. Please refer to the description for `IInjectionQuery`.

5.2 Create Sequence From Worklist [SWFR-2351]

This release adds functionality to create a sequence based on a worklist file.

Implementation details may be found in the SDK online help. Please refer to the description for IItemFactory. TryUpdateOrCreateSequenceFromWorklist

6 Resolved Issues

This chapter describes the issues that have been resolved with the release of the version of the Chromeleon 7 SDK.

Minor and trivial issues also have been resolved, but are not mentioned here. If you require information about the status of an issue, but which is not listed here, please contact your local Thermo Fisher Scientific representative for more information.

The numbers in the first column of the table below refer to the Thermo Fisher Scientific tracking IDs.

ID	Description
CM7-20800	When scanning a large number of sequences, an "Out of Memory" error was sometimes encountered due to a cache overflow. A SDK function has been added to flush the cache.
CM7-22181	When copying items from a sequence or folder marked as read-only, an error message was generated.
CM7-23213	It was possible to create string custom variables which exceed the defined database limit (255 characters). Doing so resulted in an unhandled exception. This is now prohibited.
CM7-22513	For samplers with prefixes in the rack naming convention (such as the Vanquish AS), when creating a sequence from an eWorkflow via the SDK, the position prefix was missing, resulting in invalid sample positions.
CM7-14605	Although it was possible to modify the cell values and the header/footer of a report template sheet, the changes were not saved when the Complete() method of the transaction scope was called.
CM7-19872	An out of memory exception could be encountered when transferring large amounts of data from Chromeleon 6 to Chromeleon 7. The memory leak has been fixed.