

Merge DICOM Toolkit™

5.17.0

Release Notes

© Copyright Merge Healthcare Solutions Inc. 2023.

Licensed materials - Property of Merge Healthcare Solutions Inc..

The content of this document is confidential information of Merge Healthcare Solutions Inc. and its use and disclosure is subject to the terms of the agreement pursuant to which you obtained the software that accompanies the documentation.

Merge Healthcare and the Merge Healthcare logo are trademarks of Merge Healthcare Inc.

Microsoft, Windows, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

All other names are trademarks or registered trademarks of their respective companies.

U.S. GOVERNMENT RESTRICTED RIGHTS:

This product is a “Commercial Item” offered with “Restricted Rights.” The Government's rights to use, modify, reproduce, release, perform, display or disclose this documentation are subject to the restrictions set forth in Federal Acquisition Regulation (“FAR”) 12.211 and 12.212 for civilian agencies and in DFARS 227.7202-3 for military agencies. Contractor is Merge Healthcare Solutions Inc.



Merge Healthcare Incorporated
900 Walnut Ridge Drive
Hartland, WI 53029
USA

Symbols Glossary:

Symbol	Title
	Manufacturer
	Consult Instructions for Use

The full symbols glossary can be viewed at

https://www.merative.com/content/dam/merative/documents/brief/Merge_Healthcare_Symbols_Glossary.pdf

For application support or to report issues with user documentation, contact Customer Support:

☎ 1-877-741-5369 (North America)
+31.20.514.5073 (Europe, the Middle East and Africa)
1.800.952.156 (Australia)

✉ MC3Support@merative.com

Part	Date	Revision	Description
COM-5481	July 2023	1.0	Updated bi-annually

The latest version of this document can be found at <https://mergecustomerforce.com/mergeusercommunity/login>.

Contents

- Chapter 1. About the Application4
- Chapter 2. Enhancements.....6
- Chapter 3. Fixed Issues8
- Chapter 4. Known Issues9

Chapter 1. About the Application

The Merge DICOM Toolkit provides a powerful and simplified interface to DICOM. It allows you to focus on the important details of your application and the immediate needs of your end users, rather than the complex details of the DICOM standard.

WARNING: If using the log feature to log information to a file, Personal Health Information (PHI) may be exposed. Client application and system should be aware of this risk and take necessary procedures to prevent and identify unauthorized use or access to PHI.

This release includes the following toolkits:

Merge DICOM Toolkits	Target Development Environment
Merge DICOM Toolkit – C/C++ Toolkit V5.17.0	32-Bit Windows – Visual C++
	64-Bit Windows – Visual C++
	64-Bit Windows (New Edition) – VS 2019
	32-Bit Windows – Borland
	32-Bit – Linux on Intel x86
	64-Bit – Linux on Intel x86_64
	64-Bit – Linux on Intel x86_64 (New Edition) – GCC 9.4.0
	64-Bit – Linux on ARMv8
	32-Bit – Solaris 10 on Intel x86 – GCC Compiler
	64-Bit – Solaris 10 on Intel x86_64 – GCC Compiler
	32-Bit – Solaris 8 Sparc – Sun Compiler
	32-Bit – Solaris 8 Sparc – GCC Compiler
	32-Bit – MAC OS on Intel and Power PC
	64-Bit – MAC OS on Intel
	64-Bit – macOS on Intel and M1 (New Edition)
	32-Bit Android on Armv7
	64-Bit Android on Armv8
64-Bit iOS	
Merge DICOM Toolkit – .NET Framework 2.0/C# Toolkit V5.17.0	32-Bit Windows
	64-Bit Windows
Merge DICOM Toolkit – .NET Framework 4.5/C# Toolkit V5.17.0	64-Bit Windows

Merge DICOM Toolkits	Target Development Environment
Merge DICOM Toolkit – .NET Framework 4.8/C# Toolkit V5.17.0	64–Bit Windows
Merge DICOM Toolkit – .NET Core/C# Toolkit V5.17.0	64–Bit Windows
	64–Bit Linux
Merge DICOM Toolkit – .NET 6/C# Toolkit V5.17.0	64–Bit Windows
	64–Bit Linux
Merge DICOM Toolkit – Java Toolkit V5.17.0	Windows, Solaris, Linux, Android, Mac OS X
Merge DICOM Toolkit – Python Toolkit V5.17.0	64–Bit Windows
	64–Bit Linux

This release includes the following:

- [CHAPTER 2. ENHANCEMENTS ON PAGE 6](#)
- [CHAPTER 3. FIXED ISSUES ON PAGE 8](#)
- [CHAPTER 4. KNOWN ISSUES ON PAGE 9](#)

Chapter 2. Enhancements

NOTE: Supplements and change proposals apply to all toolkits.

This release adds support for the following DICOM supplements.

Supplement	Title
213	Second Generation Radiotherapy - Enhanced RT Image and RT Patient Position Acquisition Instruction
231	Variable Modality LUT Softcopy Presentation State

This release also contains updates to the DICOM standard. It addresses the following correction proposals (CP):

CP#	Title
1776	Quote in multipart media type parameter
2185	Add Treatment Session UID to First Generation RT Objects and CT Image
2188	Restore RESTful WebServices use case examples
2189	Correct inconsistent Multi-Energy Image type conditions for Classic and Enhanced CT IODs
2196	Add FHIR Coding Scheme URL Type
2197	Add Clinical Trial Time Point Type Code Sequence to Study Module and extend Value Set
2203	Add References between 1st and 2nd Gen Rad IODs
2206	Correct the media types for video in PS3.18
2213	Species Attributes conditions should be non-human not animal
2214	Sub-pixel Resolution SCOOD mapping to 3D RCS
2216	Add Specimen Module to Presentation States
2221	Retirement of unused modules from RT Dose IOD
2228	Correct references to Content-Encoding and conditions arising from it
2229	Support of new MLC types
2230	Clarify uniqueness and labeling of Referenced Plan Overview
2236	Need to be able to select optical path in advanced blending presentation state
2237	Propagate VOI and Palette Color support from blending to advanced blending presentation state
2245	Retire the Robotic Base Location Indicator
2247	Add Long Label to Ion Beam

CP#	Title
2255	Add Silver to X-ray Filtration Macro
2264	Add Gen 2 Termination Codes to Gen 1 Treatment Records

In addition to updating the toolkit to reflect changes to the DICOM standard, this release also contains the following enhancements:

NOTE: Issue numbers can be used to request additional information from your account representative.

Issue	Description
COM-5503	Support of Long Code Value (0008,0119) and URN Code Value (0008,0120) in StructuredReport Code Item. This enhancement applies to all Merge DICOM Toolkits.
COM-5442	Introduce new Merge DICOM .NET 6 Toolkit. Support of Merge DICOM .NET 5 Toolkit is retired.
COM-5079	Provide whitelist filter for private DICOM attributes. This enhancement applies to all Merge DICOM Toolkits.

Chapter 3. Fixed Issues

The following table lists the issues that have been fixed in this release.

NOTE: Issue numbers can be used to request additional information from your account representative.

Issue	Description
COM-5292	Fix issue when the license validation fails if an expiration date is set beyond 2038 year. This update applies to all Merge DICOM Toolkit.
COM-5530	Fix issue where StructuredReport read method throws an exception on reading valid DICOM data. This update applies to the Merge DICOM .NET Toolkits.

Chapter 4. Known Issues

The following table lists the issues that have been identified, but not fixed, in this release.

NOTE: Issue numbers can be used to request additional information from your account representative. .

Issue	Description
COM-5608	An issue found with certain GB18030 character containing 0x5C byte (ASCII BACKSLASH), resulting in incorrect decoding of this particular GB18030 character. This update applies to the Merge DICOM C/C++ Toolkit.