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1. Purpose

The purpose of this document is to describe the process used for Formal QA Automation Testing for a given software release to QA. It encompasses the process or actions needed to test software and hardware by formal QA using automation.

2. Scope and Applicability

This document applies to the Imaging Systems and NDT Organization which includes X-Ray solutions and CBCT that use automation testing for CBCT and X-Ray Products (DR/CR) in Rochester, Canandaigua and Shanghai sites. This is Quality Engineering (QE) process for creation and execution of automation to perform formal QA testing for Carestream Health, Inc. (CSH) XRS products software and hardware.

3. Definitions

Reference SOP-000085, Carestream Definitions Acronyms and Glossary for general acronyms and definitions. Specific acronyms used in this document are included below.

Acronym/Term	Definition
GIT	GIT is a version control system which monitors any change to a document.
PLI	Carestream GUI driven Aras Innovator, a software web based document management tool
Quality Center	HP Quality Center, a web based test management tool
SCM	Software Configuration Management Team
TSU	Test Script Update
XRS	X-Ray Solutions

4. Responsibilities

Quality Engineer (QE)	All QE engineers testing formal released software need to follow this process when creating and executing formal QA automation scripts.

5. Formal QA Automation Process

The Formal QA Automation process is initiated when a software release is provided to quality assurance for verification and validation. Following is the process for creating and executing automated scripts against product requirements for formal QA.

5.1 Creating Automated Test Scripts

1. Reference SOP-000056 Product Verification and Validation Activities for the rules on how to verify and validate applicable requirements. (TMP-000131 is not applicable for automation test scripts as stated in SOP-000056)
2. Automated test scripts are stored and managed in a GIT or Quality Center.
3. All newly created test scripts are required to have a peer code review with the automation team and all changes made to the test script before it's sent out for approval in the document management tool.
4. All automated test scripts are required to be approved in the document management tool before being used by QA to formally test a software release.
5. An approved test script must go through the approval process if the test script has been modified before the script is run.
6. An ID Number is used to link the requirements in the Test Management Tool and the test script to be used to test the requirements.
7. The test management tool only needs to state the requirement to be tested, all other documentation will be included in the test script itself.

5.2 QA Automation Results

1. All Formal QA Automation results are placed into the Test Management Tool to provide proof that the test scripts ran and either passed or failed.
2. If a test script fails due to a fault in the software being tested, a defect is written in the defect tracking tool.
3. If a test script fails because it's been determined that the test script needs to be updated due to a change in the systems behavior:
4. Keep the failed results in the test management tool.
5. Update the test script as needed and document the changes in GIT and the Test Management Tool.
6. Mark the requirements being tested in the Test Management Tool that a TSU was needed in the test script.
7. Describe in detail the changes needed for the TSU in the Test Management Tool.
8. Submit the updated test script for approval in the document management tool.
9. If the TSU is approved before the end of the sprint, it may be re-run
10. If the TSU is not approved before the end of the sprint, the updated test script will be run in the next sprint.

<End of Document>

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