1. **PURPOSE**

This document identifies the requirements under test, specifies test cases, the implementation plan, and the qualification plan.

1. **SCOPE**

The ECHC screen GUI shall provide a means to Run Empty Chamber Half Cycle. The ECHC screen GUI shall display a series of instructions to the user, to step the user from Run cycle request to unloading the chamber after the cycle is complete.

1. **APPLICABLE DOCUMENTS**

| **Document Number** | **Document Title** |
| --- | --- |
| SOP-00335 | Software Development Procedure |
| SOP-00478 | Test Software Procedure |

1. **EQUIPMENT / SUPPLIES**

| **Resource** | **Details** |
| --- | --- |
| NA | NA |

1. **Features/Requirements to be Tested**

| **SRS Number** | **Test Case Number and Name** |
| --- | --- |
| RVX2-SUBR-531 | Empty Chamber Half Cycle Screen |

1. **TEST PROCEDURE CASES**

| **Test Completion Status** | **Recorded Information** |
| --- | --- |
| **Test name:** | Empty Chamber Half Cycle Screen |
|
| **Name of Tester:** |  |
|
| **Signature:** |  |
|
| **Test Date:** |  |
|
| **Name of Reviewer:** |  |
|
| **Signature:** |  |
|
| **Date:** |  |
|
| **Test Duration (min):** |  |
|
| **Traceability requirement numbers:** | RVX2-SUBR-531 |
|
| **Product name and revision:** | Revox 2.0 |
|
| **Revox 2.0 Machine Name:** |  |
|
| **Controller/PLC software revision:** |  |
|
| **HMI Software Version:** |  |
|
| **Application Service Software Version:** |  |
|
| **Recipe WebApp Software Version:** |  |
|
| **Recipe Name and Revision** |  |
| **Database Report.pdf File Name** | NA |
| **Database Log.csv File Name** | NA |
| **Additional Equipment Used:** | NA |
| **Overall Result** | (indicate the test status here and provide issue #s) |
| Pass |  |
| Pass with Known Software Issues | Issue ID(s): |
| Fail | Issue ID(s): |
| End of Overview |  |

|  |  |
| --- | --- |
| **Prepare to Test (Pre-test setup)** |  |
| **Task Name** | **Task Description** |
| NA | NA |
| End of Prepare to Test |  |

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| --- | --- | --- | --- | --- | --- | --- |
| **Test Case Description (Technical overview of the Test Case):** | | | | | | |
| **Verification of “Run Cycle” button in “Empty Half Cycle” screen when Machine Status is other than “Cycle Not Active-Idle”** | | | | | | |
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|
| **Test Case ID:** | TC\_001 | | | | | |
| **SRS ID(s):** | RVX2-SUBR-531 |  | | |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”  2. “Machine Status” field in “Home” screen displays status other than “Cycle Not Active-Idle” | | | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | | | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed | | |  |  |
| 2 | Click on “Empty Half Cycle” button | “Empty Half Cycle” screen should get displayed with below mentioned components:  1. Run Cycle – Button  2. Cycle Status – Textbox (Read Only)  3. Chamber Temp - Textbox (Read Only)  4. Time Elapsed - Textbox (Read Only)  5. Start Time - Textbox (Read Only)  6. End Time - Textbox (Read Only)  7. Cycle Number - Textbox (Read Only)  8. Abort Cycle - Button | | |  |  |
| 3 | Check whether “Run Cycle” button is enabled | “Run Cycle” button should be disabled and user should not be able to click on “Run Cycle” button | | |  |  |
| End of Test Case | |  | | |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | | | |
| **Verification of “Run Cycle” button in “Empty Half Cycle” screen when Machine Status is “Cycle Not Active-Idle”** | | | | | | |
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|
| **Test Case ID:** | TC\_002 | | | | | |
| **SRS ID(s):** | RVX2-SUBR-531 |  | | |  |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”  2. “Machine Status” field in “Home” screen displays status “Cycle Not Active-Idle”  3. No alert message is present in “Alarm Fault” screen | | | | | |
| **Test Step #** | **Test Step Instructions** | **Expected Result** | | | **Actual Result** | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | “Home” screen should get displayed | | |  |  |
| 2 | Click on “Empty Half Cycle” button | “Empty Half Cycle” screen should get displayed | | |  |  |
| 3 | Check whether “Run cycle” button is displayed and is enabled | “Run Cycle” button should get displayed and should be enabled | | |  |  |
| End of Test Case | |  | | |  |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | | | |
| **Verify the process of execution of empty chamber half cycle when door is locked** | | | | | | |
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| **Test Case ID:** | TC\_003 | | | | | |
| **SRS ID(s):** | RVX2-SUBR-531 | |  |  | |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”  2. “Machine Status” field in “Home” screen displays status “Cycle Not Active-Idle”  3. Door is Locked  4. No alert message is present in “Alarm Fault” screen  5. Empty chamber half cycle is loaded from “Cycle Selection” screen | | | | | |
| **Test Step #** | **Test Step Instructions** | | **Expected Result** | **Actual Result** | | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | | “Home” screen should get displayed |  | |  |
| 2 | Click on “Empty Half Cycle” button | | “Empty Half Cycle” screen should get displayed |  | |  |
| 3 | Click on “Run Cycle” button | | Confirmation window to start empty chamber half cycle should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 4 | Click on “Confirm” button | | Confirmation window to check for sterilant supply should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 5 | Click on “Confirm” button | | Confirmation window to confirm chamber is empty and door close should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 6 | Click on “Confirm” button | | Window with statement “Press the Start Button” should get displayed with “Start Cycle” and “Cancel” button option |  | |  |
| 7 | Click on “Start Cycle” button | | Window should get closed which displays statement “Press the Start Button” |  | |  |
| 8 | Check for “Cycle Status” field in “Empty Half Cycle” screen | | “Cycle Status” field in “Empty Half Cycle” screen should display status “In Progress – LTS” |  | |  |
| 9 | Wait until “Cycle Status” field in “Empty Half Cycle” screen display status “Cycle Complete” | | Window should get displayed with cycle complete status along with “Unlock Door” button options |  | |  |
| 10 | Click on “Unlock Door” button | | Window should get displayed to unload the chamber with “Confirm” button option |  | |  |
| 11 | Click on “Confirm” button | | Window to unload the chamber should get closed |  | |  |
| End of Test Case | | |  |  | |  |
| **Test Case Description (Technical overview of the Test Case):** | | | | | | |
| **Verify the process of execution of empty chamber half cycle when door is unlocked** | | | | | | |
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| **Test Case ID:** | TC\_004 | | | | | |
| **SRS ID(s):** | RVX2-SUBR-531 | |  |  | |  |
| **Reference Docs:** | 1. ARC-00001\_02 REVOX 2.0 System Architecture and Functionality.docx  2. ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx  3. Attachment 1- ARC-00005\_02 Revox 2.0 High Level Use Cases Source File.vsdx | | | | | |
| **Preconditions:** | 1. User is logged-in in HMI (“Operator”, “Site Admin”, “Applications Engineering”, “Cantel FSE”, “Cantel Production”, “Cantel Engineering”  2. Machine Status” field in “Home” screen displays status “Cycle Not Active-Idle”  3. Door is Unlocked  4. No alert message is present in “Alarm Fault” screen  5. Empty chamber half cycle is loaded from “Cycle Selection” screen | | | | | |
| **Test Step #** | **Test Step Instructions** | | **Expected Result** | **Actual Result** | | **Pass / Fail (if F, list Issue #)** |
| 1 | Check whether “Home” screen gets displayed | | “Home” screen should get displayed |  | |  |
| 2 | Click on “Empty Half Cycle” button | | “Empty Half Cycle” screen should get displayed |  | |  |
| 3 | Click on “Run Cycle” button | | Confirmation window to start empty chamber half cycle should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 4 | Click on “Confirm” button | | Confirmation window to check for sterilant supply should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 5 | Click on “Confirm” button | | Confirmation window to confirm chamber is empty and door close should get displayed with “Confirm” and “Cancel” button options |  | |  |
| 6 | Click on “Confirm” button | | Window with statement “Please Close Door” should get displayed with “Confirm” and “Cancel” button options  **(TBD-This step is added from document “ARC-XX Revox 2.0 GUI High Level Design Document\_Rev3\_Pub.vsdx “, but in GUI, window to close door is not displayed)** |  | |  |
| 7 | Click on “Confirm” button | | Window with statement “Press the Start Button” should get displayed with “Start Cycle” and “Cancel” button option |  | |  |
| 8 | Click on “Start Cycle” button | | Window should get closed which displays statement “Press the Start Button” |  | |  |
| 9 | Check for “Cycle Status” field in “Empty Half Cycle” screen | | “Cycle Status” field in “Empty Half Cycle” screen should display status “In Progress – LTS” |  | |  |
| 10 | Wait until “Cycle Status” field in “Empty Half Cycle” screen display status “Cycle Complete” | | Window should get displayed with cycle complete status along with “Unlock Door” button options |  | |  |
| 11 | Click on “Unlock Door” button | | Window should get displayed to unload the chamber with “Confirm” button option |  | |  |
| 12 | Click on “Confirm” button | | Window to unload the chamber should get closed |  | |  |
| End of Test Case | | |  |  | |  |

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| --- | --- |
| **Test Clean Up** | |
| **Task Name** | **Task Description** |
| NA | NA |
| End of Clean Up and End of Test |  |

1. **Qualification Plan**

A dry run will be performed and test errors, if any, will be corrected.

1. **Limitations**

NA