User Acceptance Test

Distributed Instrument Cluster

Contents

[Items used for the test. 2](#_Toc72176957)

[Scenario 1 Guest Login 3](#_Toc72176958)

[Guest Login 001 3](#_Toc72176959)

[Guest Login 002 3](#_Toc72176960)

[Guest Login 003 3](#_Toc72176961)

[Scenario 2 Select a device 3](#_Toc72176962)

[Select Device 001 4](#_Toc72176963)

[Select Device 002 4](#_Toc72176964)

[Scenario 3 View video as guest 4](#_Toc72176965)

[View video as guest 001 4](#_Toc72176966)

[View video as guest 002 4](#_Toc72176967)

[View video as guest 003 5](#_Toc72176968)

[View video as guest 004 5](#_Toc72176969)

[Scenario 4 Register account 5](#_Toc72176970)

[Register Account 001 5](#_Toc72176971)

[Register Account 002 6](#_Toc72176972)

[Register Account 003 6](#_Toc72176973)

[Register Account 004 6](#_Toc72176974)

[Register Account 005 7](#_Toc72176975)

[Register Account 006 7](#_Toc72176976)

[Register Account 007 7](#_Toc72176977)

[Register Account 008 7](#_Toc72176978)

[Scenario 5 Account Login 8](#_Toc72176979)

[Account Login 001 8](#_Toc72176980)

[Account Login 002 8](#_Toc72176981)

[Account Login 003 8](#_Toc72176982)

[Account Login 004 9](#_Toc72176983)

[Account Login 005 9](#_Toc72176984)

[Scenario 6 Control Device 9](#_Toc72176985)

[Control Device 001 9](#_Toc72176986)

[Control Device 002 10](#_Toc72176987)

[Control Device 003 10](#_Toc72176988)

[Control Device 004 10](#_Toc72176989)

[Control Device 005 11](#_Toc72176990)

[Control Device 006 11](#_Toc72176991)

[Control Device 007 11](#_Toc72176992)

[Control Device 008 11](#_Toc72176993)

[Control Device 009 12](#_Toc72176994)

[Control Device 010 12](#_Toc72176995)

[Control Device 011 12](#_Toc72176996)

[Control Device 012 13](#_Toc72176997)

[Scenario 7 Website keyboard 13](#_Toc72176998)

[Website keyboard 001 13](#_Toc72176999)

[Website keyboard 002 14](#_Toc72177000)

[Website keyboard 003 14](#_Toc72177001)

[Website keyboard 004 14](#_Toc72177002)

[Website keyboard 005 15](#_Toc72177003)

[Website keyboard 006 15](#_Toc72177004)

[Website keyboard 007 15](#_Toc72177005)

[Website keyboard 008 16](#_Toc72177006)

## Items used for the test.

Minimum 2 Computers

The remote device for the test should be a windows pc ideally.

1 Crestron cable

2 Video Capture device (Webcam or Capture card)

Get the latest commit from Github.

<https://github.com/Mikael-og-Andre/Distributed-Instrument-Cluster/tree/Master>

Visual Studio 2019 – (Used in development)

Web browser - Google Chrome or Firefox (These browsers were used in testing, and support Pointer lock APIs in the browser)

## Scenario 1 Guest Login

**Precondition**: Backend web server is running

|  |  |
| --- | --- |
| **Test** | Guest Login 001 |
| **Test Name** | Enter Website |
| **Test Description** | Enter the URL into your Browser with /Login, and press enter. |
| **Expected Result** | The website page loads with the login fields and buttons in less than 10 seconds. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Guest Login 002 |
| **Test Name** | Login as Guest |
| **Test Description** | Press the login/enter as guest button on the bottom of the screen. |
| **Expected Result** | You are transferred to the device selection page. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Guest Login 003 |
| **Test Name** | Check profile Information |
| **Test Description** | In the top bar of the device selection page, left click the profile button, it looks like a face/human |
| **Expected Result** | A drop-down menu should appear showing your information as guest |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 2 Select a device

**Precondition**: Logged in as a guest, on the device selection screen, and a remote device is connected to the server

|  |  |
| --- | --- |
| **Test** | Select Device 001 |
| **Test Name** | Refresh Connection List |
| **Test Description** | In the upper middle of the screen, there is a button that looks like 2 arrows, left click it to refresh the list of connections. |
| **Expected Result** | The page should display a loading animation, the loading should not last longer than 10 seconds. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Select Device 002 |
| **Test Name** | Check for a connected device |
| **Test Description** | If a device has connected, there should be a list of all connected devices in the middle of the device selection screen. confirm that the device shows up on the screen |
| **Expected Result** | A device should show on the screen with, the name, location, and type, and a button that says select, and if the connection has a Crestron, as well as the ping result. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 3 View video as guest

**Precondition:** Video device is outputting frames to the server, selected a Device, logged in as Guest

|  |  |
| --- | --- |
| **Test** | View video as guest 001 |
| **Test Name** | Functioning video |
| **Test Description** | In the middle of the screen there should now be a video stream |
| **Expected Result** | Video is showing on the webpage |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | View video as guest 002 |
| **Test Name** | No admin controls |
| **Test Description** | Check if there is a control bar below the video and no button that says Toggle Keyboard |
| **Expected Result** | There should not be a control bar when in guest mode. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | View video as guest 003 |
| **Test Name** | Check delay |
| **Test Description** | Either use the direct control if you are capturing video from a pc, or wave your hand in front of the webcam, and then look at how long it takes to update. |
| **Expected Result** | The video delay should be less than 15 seconds |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | View video as guest 004 |
| **Test Name** | Swap Video Device |
| **Test Description** | In the top left above the video display, there should be a Selector dropdown saying, Device 0, left click it and select device 1. |
| **Expected Result** | The video stream should change to another video stream, e.g., another picture. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 4 Register account

**Precondition**: starting at the login page

|  |  |
| --- | --- |
| **Test** | Register Account 001 |
| **Test Name** | Go to registration page |
| **Test Description** | At the bottom of the screen left click on the button that says Submit |
| **Expected Result** | The page should change to the registration page. “/Register” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 002 |
| **Test Name** | Check email validation |
| **Test Description** | In the email field, write “hello”, then left click the submit button |
| **Expected Result** | At the top of the screen, below the Register title, there is a red notification saying, “The email field is not a valid e-mail address.” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 003 |
| **Test Name** | Test notifications |
| **Test Description** | In the text field called Email enter an email in the format “word@word.com”, and left click the submit button |
| **Expected Result** | A red notification appears at the top of the screen with the following text.  “the username field is required.”  “the password field is required.”  “the Confirm Password field is required” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 004 |
| **Test Name** | Fill in a username |
| **Test Description** | Enter a username into the username field, left click the submit button |
| **Expected Result** | At the top of the screen the notifications read “The password is required” “The confirm password field is required”. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 005 |
| **Test Name** | Hidden Password |
| **Test Description** | Write hello in the password field |
| **Expected Result** | The text in the password field is obscured |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 006 |
| **Test Name** | Test password check |
| **Test Description** | In the password field enter a password, now enter a different Password in the confirm password field. Left click the submit button. |
| **Expected Result** | A red notification appears at the top of the screen saying “confirm password and password do not match” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 007 |
| **Test Name** | Reset button |
| **Test Description** | Left click the reset button |
| **Expected Result** | All the fields have the text you put in removed |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Register Account 008 |
| **Test Name** | Register an account |
| **Test Description** | Write a username in the username field, a valid email in the email field, write a password in the password field, write the same password in the confirm password field. Left click the submit button. |
| **Expected Result** | The registration should be successful, and you should be sent to the login page again. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 5 Account Login

**Precondition:** registered an account successfully, starting at the login page

|  |  |
| --- | --- |
| **Test** | Account Login 001 |
| **Test Name** | Empty Login |
| **Test Description** | Left click the submit button at the bottom of the screen with an empty username and password field |
| **Expected Result** | A Red notification appears at the top of the screen.  “The username field is required.”  “The password field is required.” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Account Login 002 |
| **Test Name** | Empty password |
| **Test Description** | Enter the username in the username field |
| **Expected Result** | A red notification appears.  “The password field is required” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Account Login 003 |
| **Test Name** | Wrong password |
| **Test Description** | Enter the correct username in the username field, and enter a different password from when you registered |
| **Expected Result** | A red notification should appear denying you access |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Account Login 004 |
| **Test Name** | Test a user |
| **Test Description** | Enter the username and password from the registration stage |
| **Expected Result** | You should be moved to the device selection page |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Account Login 005 |
| **Test Name** | Check account information |
| **Test Description** | In the top right of your screen, left click the profile icon. Looks like face/human |
| **Expected Result** | A dropdown menu should appear below the button, showing that you are logged in with the email from the previous step |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 6 Control Device

**Precondition:** Starting after a device is already selected, logged in to an account, remote device selected is a computer with capture card, and Crestron connected

|  |  |
| --- | --- |
| **Test** | Control Device 001 |
| **Test Name** | Connect to device |
| **Test Description** | Locate the button on the page that has the text “Request Control” and left click it. |
| **Expected Result** | After pressing the text “status: none” should update to display “status: Connecting”, “status: Requesting device”, “status: In queue pos 1” “status: Controlling”, You should reach the controlling state in less than 10 seconds is no other device is connected. And the status does not read “Status: Disconnected”. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 002 |
| **Test Name** | Lock mouse to device |
| **Test Description** | Locate the button that has the text “Lock mouse” and left click it |
| **Expected Result** | After pressing your mouse should disappear from the screen, and a popup at the top of the screen should read “press escape to unlock” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 003 |
| **Test Name** | Check mouse movement |
| **Test Description** | Drag your mouse to the right. |
| **Expected Result** | The video should update showing your mouse move to the right after max 3 seconds |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 004 |
| **Test Name** | Check left click |
| **Test Description** | Hover the mouse cursor over desktop icon element and press the right mouse button once. |
| **Expected Result** | The element should respond to being clicked, with a highlight. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 005 |
| **Test Name** | Check right click |
| **Test Description** | Hover the mouse on the desktop background and press the right mouse button. |
| **Expected Result** | A dropdown menu appears. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 006 |
| **Test Name** | Open notepad on the remote computer |
| **Test Description** | Open a notepad or other application where you can type text and highlight it so you can start writing in the application. |
| **Expected Result** | A text application should be open on the remote device. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 007 |
| **Test Name** | Check normal letters |
| **Test Description** | On your keyboard tap the following letters q,w,e,r,t,y,u,I,o,p,a,s,d,f,g,h,j,k,l,z,x,c,v,b,n,m |
| **Expected Result** | The letters q,w,e,r,t,y,u,I,o,p,a,s,d,f,g,h,j,k,l,z,x,c,v,b,n,m  have been entered in the text document on the remote device. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 008 |
| **Test Name** | Check shift key |
| **Test Description** | Hold down the shift key on your keyboard.  Then press the key a.  Release the shift key. |
| **Expected Result** | The letter A has appeared in the document in uppercase. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 009 |
| **Test Name** | Check backspace key |
| **Test Description** | Press and release the backspace key. |
| **Expected Result** | The A letter should be deleted from the text document. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 010 |
| **Test Name** | Check holding backspace |
| **Test Description** | Hold down the backspace key for 4 seconds |
| **Expected Result** | The letters will be erased from the text document. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 011 |
| **Test Name** | Check special keys |
| **Test Description** | Press and release the windows button |
| **Expected Result** | The windows menu should open. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Control Device 012 |
| **Test Name** | Check special key combos |
| **Test Description** | Press ctrl, alt, delete, at the same time |
| **Expected Result** | The device should enter a menu allowing you to logout or enter task manager, if you are on windows. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

## Scenario 7 Website keyboard

**Precondition:** Starting after a device is already selected, logged in to an account, remote device selected is a computer with capture card, and Crestron connected

|  |  |
| --- | --- |
| **Test** | Website keyboard 001 |
| **Test Name** | Connect to device |
| **Test Description** | Locate the button on the page that has the text “Request Control” and left click it. |
| **Expected Result** | After pressing the text “status: none” should update to display “status: Connecting”, “status: Requesting device”, “status: In quue pos 1” and after less than 5 seconds it should display “status: controlling” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 002 |
| **Test Name** | Open website keyboard |
| **Test Description** | Locate the button that has the text “Keyboard” and left click it |
| **Expected Result** | After pressing your mouse should disappear from the screen, and a popup at the top of the screen should read “press escape to unlock” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 003 |
| **Test Name** | Open notepad on remote computer |
| **Test Description** | Open a notepad or other application where you can type text and highlight it so you can start writing in the application. |
| **Expected Result** | A text application should be open on the remote device. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 004 |
| **Test Name** | Check normal letters |
| **Test Description** | On the website keyboard tap the following letters  q,w,e,r,t,y,u,I,o,p,a,s,d,f,g,h,j,k,l,z,x,c,v,b,n,m |
| **Expected Result** | The letters  q,w,e,r,t,y,u,I,o,p,a,s,d,f,g,h,j,k,l,z,x,c,v,b,n,m  have been entered in the text document on the remote device, and in the google chrome console as “a” followed by “a break”.  If they appeared in uppercase, press the caps lock key, and repeat the step. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 005 |
| **Test Name** | Check shift key, with hold down key support |
| **Test Description** | Hold down the shift key on the website keyboard, you “hold down a key” by right clicking it with your mouse, the button should get a darker shade to show it as clicked.  Then press the key a.  Release the shift key. |
| **Expected Result** | The letter A has appeared in the document in uppercase.  In the google chrome console, there is a log saying “shift” and “shift break” |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 006 |
| **Test Name** | Check backspace key |
| **Test Description** | Press and release the backspace key on the website keyboard. |
| **Expected Result** | The A letter should be deleted from the text document.  In the google chrome console there is a backspace log |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 007 |
| **Test Name** | Check holding down backspace |
| **Test Description** | Hold down the backspace key for 4 seconds on the website keyboard |
| **Expected Result** | The letters will be erased from the text document.  In the google chrome console,  A “backspace” log appears when you press the key down, and a “backspace break” appears when you release the key |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

|  |  |
| --- | --- |
| **Test** | Website keyboard 008 |
| **Test Name** | Check special key combos |
| **Test Description** | Right click ctrl and alt, then left click delete, by using the right click functionality specified earlier. |
| **Expected Result** | The device should enter a menu allowing you to logout or enter task manager, if you are on windows. |
| **Actual Result** |  |
| **Input Data** |  |
| **Passed/Failed** |  |

**Tests performed:**

**Tests passed:**

**Signature:**

**Date:**