REDCap
Research Electronic Data Capture

Validation Test Script

19_Record Locking and E-Signatures

System Setup

REDCap Version	LTS 10.0.5	**Application URL**	https://redcaprsvc.app.vumc.org/	
Browser Version	Google Version 89.0.4389.90 (Official Build) (64-bit)	**OS Version**	Windows 10	
Actual Execution Time	26 mins (15:16-15:40)			
Instructions	Reference User Guide for Community User			

Test Summary

Feature Category Description: Data Security (user access control, audits) - *Limits access to authorized users to the minimum information necessary to complete their job. Supports an audit trail of user actions within the user interface of REDCap.*

Test Purpose Details: *This test script validates the Record Locking Customization application and the E-Signature and Locking Mgmt application.*

Functional Requirements:
- 19.5, 19.24, 19.38 Record locking and E-signatures
  - 19.32, 19.36 The E-signature and Locking Management tool shall display all records in a database with their status as locked or e-signed for all data entry forms.
  - 19.27 The tool shall not display forms that are not designated to be locked.
  - The tool shall support the following options for filtering the record list:
    - 19.24 Show all rows
    - 19.29 Show timestamp / user
    - 19.30 Hide timestamp / user
    - 19.31 Show locked
    - 19.32 Show not locked
    - 19.33 Show e-signed
    - 19.34 Show not e-signed
    - 19.35 Show both locked and e-signed
    - 19.36 Show neither locked nor e-signed
    - 19.37 Show locked but not e-signed
  - 19.4, 19.9, 19.12, 19.20 The tool shall display locked status of forms for all records.
  - 19.9, 19.20 The tool shall display e-signature status of forms for all records.
  - 19.6 The tool shall support the ability to navigate directly to a selected record.
  - The Record Locking Customization module shall allow the customization of:
    - 19.8 Display or not display E-Signature option on each data collection instrument
    - 19.8 Lock Record Custom Text

- ▪ 19.13, 19.15 Display or not display the Lock option for each data collection instrument
  - ○ 19.17, 19.21 The Record Locking Customization module shall provide the ability to edit or remove the Lock Record Custom Text. The default text is: "Lock this record for this form? If locked, no user will be able to edit this record on this form until someone with Lock/Unlock privileges unlocks it."
  - ○ 19.39, 19.40, 19.41 The Record Locking Customization module shall support edits only in development for project users and in development and production for administrators.

Test Requirements				
Test Users				
ID	User Name	Password	Minimum User's Rights	DAGs and Other Settings
1.	admin1005	Pswd_1103	Administrator	Pre-existing administrator user
2.	user1005_1	1005_1Pswd	User Rights: -Project design & setup rights - access to Record Locking Customization -Create records - Locking/Unlocking with E-Signature authority -Allow lock/unlock *Entire* Records (record level)	Control Center System-level User Settings: -Normal user can create projects: Yes -Allow normal users to move projects to production: Yes Browse Users -User Settings: Allow this user to create or copy projects? = yes
3.	user1005_3	1005_3Pswd	User has project design & setup rights and access to Record Locking Customization. Lock/Unlock Records Disabled.	

Project Setup		
ID	Description	Instructions
1.	Project: 19_RecordLockingEsigs_v1005	Project created during script 7
2.	Project Setup:	Repeatable instruments and events is disabled. Delete the Data Dictionary instrument
3.	Data Import File Name	N/A
4.	Other Files	N/A 1005_1Pswd

19_Record Locking and E-Signatures

	Test Steps			
Step #	**Action Step**	**Expected Result**	**Pass / Fail**	**Comments**
Help	*You must perform the actions listed in this column.*	*After performing the actions in the 'Action Step' column, you should see the following.*	*Check 'Pass', if the actual results match the 'Expected Result'; otherwise, check 'Fail'.*	*Include unexpected results, suggestions. etc.*
1.	Log in as User1005_1 Click on the '19_RecordLockingEsigs_v1005' project.	User is able to log in. Project Opens and user can see the 'Customize & Manage Locking/E-signatures' application.	☑ **Pass** **Fail** ☐	
2.	Click 'Customize & Manage Locking/E-signatures'	The 'Customize and Manage the Record Locking and E-signature Functionality' page displays.	☑ **Pass** **Fail** ☐	
3.	Click 'Add / Edit Records' and select Record ID 1. Open the 'Data Types' instrument, scroll down and enter a 1 in the Required field. Click 'Lock' at the bottom of the Data Types instrument and click 'Save & Stay'.	The Record Home Page opens. The Data Types instrument opens. A red box will be shown at the top of the page that states "Locked by user1005_1 (User1 1005_1) on …"	☑ **Pass** **Fail** ☐	
4.	Attempt to click on any field. Scroll to the bottom of the form and review the Lock status.	You are not able to click into the field. The form shows locked and it shows "Locked by user1005_1 (User1 1005_1) on … "	☑ **Pass** **Fail** ☐	
5.	Click 'Customize & Manage Locking/E-signatures' and click on the "E-signature and Locking Management' tab.	The Data Types instrument for Record 1 should show as 'Locked'	☑ **Pass** **Fail** ☐	
6.	Click 'View Record' for the Data Types instrument. Scroll down and click 'Unlock form'	A new tab opens and you are taken into the Data Types instrument for Record 1. A message appears that states "UNLOCK FORM? Are you sure you wish to unlock this form for record "1"?		

	Click 'Unlock'	A message appears that states "UNLOCK SUCCESSFUL! This form has now been unlocked. Users can now modify the data again on this form.		
	Click 'Close'		☑ **Pass**	
	Close the tab	Browser tab closes.	**Fail** ☐	
7.	Click 'Record Status Dashboard'	Record Status Dashboard opens.	☑ **Pass**	
	Click on the 'Data Types' instrument.	Ensure no lock message appears.	**Fail** ☐	
8.	Click 'Customize & Manage Locking/E-signatures'	The 'Customize and Manage the Record Locking and E-signature Functionality' page will display.		
	Click 'Also display E-signature option on instrument?' for the Text Validation instrument.	The box is checked.		
	Enter "custom text" in Lock Record Custom Text field for the Text Validation instrument. Click Save.	The custom text is saved.	☑ **Pass** **Fail** ☐	
9.	Click 'Add/Edit Records' and select Record ID 1.	The Record Home Page opens.		
	Click on the 'Text Validation' instrument.	The instrument opens.		
	Enter 'Blaze Foley' in the Name field.	Text is entered.		
	Enter 'foley@gmail.com'	Text is entered.		
	Change form status to Complete.	Form status is changed.		
	Review the lock section.	'custom text' is shown.		
	Click the Lock field.	Lock field is checked.		
	Click the E-signature field.	E-signature field is checked.		
	Click Save & Stay	A window appears that asks you to enter your username and password.		
	Enter the username and password for the user and click save.	A green box is shown at the top of the page that states "E-signed by user1005_1 (User1 1005_1) on ...		

		A red box is shown at the top of the page that states "Locked by user1005_1 (User1 1005_1) on …" The custom text is shown at the bottom of the form. The Lock icon is checked and it shows "Locked by user1005_1 (User1 1005_1) on…" The E-signature icon is checked and it shows "E-signed by user1005_1 (User1 1005_1) on …"	☑ **Pass** **Fail** ☐	
10.	Click on the 'Data Types' instrument. Scroll down and review the lock section.	Instrument opens. The custom text is not shown and instead displays "Lock this instrument" and the lock option and lock information is shown. The E-signature field is not shown.	☑ **Pass** **Fail** ☐	
11.	Click Record ID 1	The Record Home Page opens and the lock icon and the E-signature icon appears for the Text Validation instrument for Event 1.	☑ **Pass** **Fail** ☐	
12.	Click 'Choose action for record' and select 'Lock entire record' Confirm lock Click OK Open Data Types instrument and attempt to click on any field. Click Record ID 1 Click "Choose action for record" Do not make any selection	A message displays that states "Lock entire record"? A message displays that states "Record 1 is now locked". You are not able to click into the field. The Record Home Page opens Unlock entire record choice is present	☑ **Pass** **Fail** ☐	
13.	Click 'Customize & Manage Locking/E-signatures' and uncheck 'Display the Lock option for this instrument' for the Data Types instrument.	Automatically saved and the row is highlighted in red.	☑ **Pass** **Fail** ☐	

14.	Click 'Record Status Dashboard' Click the 'Text Validation' instrument and scroll to the bottom. Click the 'Data Types' instrument and scroll to the bottom.	Record Status Dashboard opens. The custom text displays along with the Lock and E-signature icons. The lock options and lock information is not shown.	☑ **Pass** **Fail** ☐	
15.	Click 'Customize & Manage Locking/E-signatures' and check 'Display the Lock option for this instrument' for the Data Types instrument.	Automatically saved and the row is highlighted in green.	☑ **Pass** **Fail** ☐	
16.	Click 'Record Status Dashboard' Click the 'Text Validation' instrument and scroll to the bottom. Click the 'Data Types' instrument and scroll to the bottom.	Record Status Dashboard opens. The custom text displays along with the Lock and E-signature icons. The custom text is not shown and instead displays "Lock this instrument" and the lock option and lock information is shown.	☑ **Pass** **Fail** ☐	
17.	Click 'Customize & Manage Locking/E-signatures' Click the pencil icon for the Text Validation instrument. Change custom text to "My dated signature confirms that I have personally reviewed and approved the data entered on this Case Report Form." Click Save	The 'Customize and Manage the Record Locking and E-signature Functionality' page displays. Custom text box opens for editing. Text is entered. Text is saved.	☑ **Pass** **Fail** ☐	
18.	Click 'Add / Edit Records' and select Record ID 1. Click on the 'Text Validation' instrument and scroll down. Click on the 'Data Types' instrument and scroll down.	The Record Home Page displays. Instrument opens and the custom lock text now displays the new custom text. The custom text is not shown and instead displays "Lock this	☑ **Pass** **Fail** ☐	

		instrument" and the lock option and lock information is shown.		
19.	Click 'Add / Edit Records' and create a new record. Click the 'Text Validation' instrument. Enter 'Clay Pigeons' in the name field. Click the E-signature field Click 'Save & Stay' Click 'Close'	The Record Home Page for Record ID 2 displays. Instrument opens. Text is entered. The field is checked. A message appears that states 'WARNING: The "Lock Record" option must be checked before the e-signature can be saved. Please check the "Lock Record" check box and try again.'	☑ **Pass** **Fail** ☐	
20.	Click the Lock field. Click 'Save & Exit Form' Enter username and password and Save	The field is checked. A window appears that asks you to enter your username and password. The Record Home Page for Record ID 2 displays. A lock and E-signature icon appears for the Text Validation instrument.	☑ **Pass** **Fail** ☐	
21.	Click 'Customize & Manage Locking/E-signatures' Click the red x to delete the custom text for the Text Validation instrument. Click OK	The 'Customize and Manage the Record Locking and E-signature Functionality' page displays. A message displays that states "DELETE CUSTOM LOCKING TEXT?..."	☑ **Pass** **Fail** ☐	
22.	Click 'Record Status Dashboard' Select the Text Validation instrument for Record 1 and scroll down.	Record Status Dashboard opens. The custom text is removed and it now states "Lock this instrument"	☑ **Pass** **Fail** ☐	
23.	Click 'Customize & Manage Locking/E-signatures' Click the E-signature and Locking Management tab.	The Customize and Manage the Record Locking and E-signature functionality page displays. The tab opens with:		

		● Button to download the table to Microsoft Excel ● List of Actions ● Table displaying all records	☑ **Pass** **Fail** ☐	
24.	Verify the table displays the following for all records: ● Record ● Event Name ● Form Name ● Locked? ● E-signed? ● View Record Link column	All records display a value in the Record column, Event Name column, Form Name column and each have a View Record link.	☑ **Pass** **Fail** ☐	
25.	Verify Record ID 1 has one forms locked and the Text Validation form E-signed.	Text Validation instrument shows locked and E-Signed. Data Types instrument and Demo Branching instrument does not show locked and N/A under the E-signed column.	☑ **Pass** **Fail** ☐	
26.	Verify Record ID 2 has one form locked and E-signed.	Text Validation instrument show locked and E-signed. Data Types instrument and Demo Branching instrument do not show locked and also display N/A under the E-signed column.	☑ **Pass** **Fail** ☐	
27.	Verify the following actions are available: ● SHOW ALL ROWS ● Show timestamp/user ● Hide timestamp/user ● Show locked ● Show not locked ● Show e-signed ● Show not e-signed (excludes N/A) ● Show both locked and e-signed ● Show neither locked nor e-signed (excludes N/A) ● Show locked but not e-signed (excludes N/A)	The actions are shown	☑ **Pass** **Fail** ☐	
27.	Click View record for record 1 Data Types instrument.	The Data Types instrument opens and in a red header.displays "The entire record was locked by user 1005_1..."	☑ **Pass** **Fail** ☐	
28.	Click 'Export All (CSV)'	Table is downloaded to excel.	☑ **Pass** **Fail** ☐	

29.	Click 'Show timestamp/user' Verify the dates/times for each record are applicable.	The date/time for the lock action and E-signed action are displayed.	☑ **Pass** **Fail** ☐	
30.	Click 'Hide timestamp/user'	The date/time for the lock action and E-signed action are no longer displayed.	☑ **Pass** **Fail** ☐	
31.	Click 'Show locked'	Only the locked records display. You should see one row for Record ID 1 and one row for Record ID 2.	☑ **Pass** ☐ **Fail**	
32.	Click 'Show not locked'	Only the records that are not locked will display. You should see two rows for Record ID1 and two rows for Record ID 2. .	☑ **Pass** ☐ **Fail**	
33.	Click 'Show e-signed'	Only the records that were e-signed display. You should see one row for Record ID 1 and one row for Record ID 2.	☑ **Pass** **Fail** ☐	
34.	Click 'Show not e-signed (excludes N/A)	No records are shown.	☑ **Pass** **Fail** ☐	
35.	Click 'Show both locked and e-signed'	Only the records that were locked and e-signed display. You should see one row for Record ID 1 and one row for Record ID 2.	☑ **Pass** **Fail** ☐	
36.	Click 'Show neither locked nor e-signed (excludes N/A)	No records are shown.	☑ **Pass** **Fail** ☐	
37.	Click 'Show locked but not e-signed (excludes N/A)	No records are shown.	☑ **Pass** **Fail** ☐	
38.	Click 'SHOW ALL ROWS'	All rows are shown. You should see three rows for Record ID 1 and three rows for Record ID 2.	☑ **Pass** **Fail** ☐	
39.	Move project to production and Keep ALL Data. Click 'Customize & Manage Locking/E-signatures'	Project is moved to production. Warning: Important Note states "While in production, any changes		

	Click 'No thanks. Leave it the way it is.'	made on this page, such as disabling the e-signature option for a form…". Access to page is restricted. Cannot make changes.	☑ **Pass** **Fail** ☐	
40.	Click 'Customize & Manage Locking/E-signatures' Click 'I understand. Let me make changes.' Uncheck the "Display the Lock option for this instrument' for any instrument.	Warning: Important Note states "While in production, any changes made on this page, such as disabling the e-signature option for a form…". Table appears. Action is saved.	☑ **Pass** **Fail** ☐	
41.	Click Project Home Log Out Log in as user1005_3 Click 'Customize & Manage Locking/E-signatures' Click 'No thanks. Leave it the way it is.' Log Out	Project Home page opens. User is able to log out. User is able to log in Warning: Important Note states "While in production, any changes made on this page, such as disabling the e-signature option for a form…". User can see the 'Record Locking Customization' page but cannot see the 'E-signature and Locking Mgmt' page.	☑ **Pass** **Fail** ☐	
	THIS ENDS THE TESTING FOR THIS SCRIPT			

Conclusion		
Did the Actual Results for each test step match the Expected Results listed?	Yes	No
Comments/Additional Information: (Indicate the step number of the step you wish to comment on.) Step 31 and 32 expected results wording adjusted.		
Completed By	**Lyndsey Castle**	**Date:** 06Apr2021