**Prevent, Mitigate, and Recover (PMR) Insight
Collective Knowledge (PICK)
Test plan
Version 2.0
April 27, 2020**

Document Control

Approval

The Guidance Team and the customer shall approve this document.

Document Change Control

Initial Release:	Version 1.0
Current Release:	Version 2.0
Indicator of Last Page in Document:	$
Date of Last Review:	April 28, 2020
Date of Next Review:	April 30, 2020
Target Date for Next Update:	April 30. 2020

Distribution List

This following list of people shall receive a copy of this document every time a new version of this document becomes available:

Guidance Team Members:

<div align="center">

Dr. Gates
Dr. Salamah
Dr. Roach
Elsa Tai Ramirez
Jake Lasley

</div>

Customer:

<div align="center">

Mr. Vincent Fonseca
Mr. Baltazar Santaella
Ms. Herandy Vasquez
Ms. Florencia Larsen
Dr. Oscar Perez
Mr. Erick De Nava

</div>

Software Team Members:

<div align="center">

Ana Zepada
Dima AbdelJaber
Ricardo Sanchez
Luis Ochoa
Scott Honaker

</div>

Change Summary

The following table details changes made between versions of this document

Version	Date	Modifier	Description

Test Plan	<Enter team name here>	Date 10/25/2019 4:51 PM	Page 2

1.0	04/15/2020	Spice Girls	Sections 1,2,3 completed. 1 test suite in section 4 completed
2.0	04/27/2020	Spice Girls	

Note: The template presented in this document was taken from:

Donaldson, S., and S. Siegel, *Successful Software Development*. Upper Saddle River, NJ: Prentice Hall, 2001, pp. 321-323.

Note: The template presented in this document was taken from: Donaldson, S., and S. Siegel, *Successful Software Development*. Upper Saddle River, NJ: Prentice Hall, 2001, pp. 321-323 and modified by Humberto Mendoza and Steve Roach.

Supplementary information is from:

Pfleeger, S. *Software Engineering, Theory and Practice*. Upper Saddle River, NJ: Prentice Hall, 1998, p. 365.

TABLE OF CONTENTS

1. Introduction

The following section will provide detailed information pertaining to the testing of the system.

1.1. Purpose

The purpose of the test plan is to provide documentation regarding the testing of the system. A test plan shows the testing items and features, the testing approach, and it addresses any issues within the system that are to be fixed in accordance to their criticality. The purpose of this test plan is to document all testing strategies and details for the PICK system.

1.2. Scope

The project software version is the current pre-production version where all testing can be performed and issues can be addressed before the release of the final version into production.

1.3. System Overview

This test plan will focus on testing the entire PICK tool and all its functionalities. PICK shall be a tool used by the white team analysts in order to efficiently sort through documents pertaining to adversarial assessments. These include computer log files and screenshots. These documents are then used to piece together an attack log to analyze the way in which the blue team responds to the red team's attack. Without the tool, analysts are currently having to open up all the files that they wish to reference in their attack graphs. In addition, this system shall simplify the way in which data is filled for nodes in the attack graph. The ultimate goal of the system is to reduce the amount of time doing each analysis to approximately two weeks.

LSH recognizes the complexity and the time it takes to analyze the applicable logs, observation notes, and other artifacts gathered from an adversarial assessment from the red, blue, and white teams and generate a report that presents the events that took place during the adversarial assessment. They want a system that would aid their analysts in correlating red team's activities to blue team's responses and represent the events that took place during an adversarial assessment graphically. UTEP and LSH are collaborating to develop Prevent, Mitigate, and Recover (PMR) Insight Collective Knowledge System (PICK) that will provide the ability to correlate red team's activities to blue team's responses and graphically represent the events that took place during an adversarial assessment.

1.4. Suspension and Exit Criteria

The testing of the application will be done based on the described approaches in section 3. If any of the high criticality tests fails, the testing will be suspended until corrections are made to the source code. If the overall test pass rate is below 50%, testing will be suspended to find and fix any issues that are causing the low pass rate. for the testing phase to exit, all the tests with a criticality level of high must pass the testing. For the testing phase to exit, an overall success rate of 90% is required.

1.5. Document Overview

This test plan will be broken into eight sections. The following is the document overview.

- Section 1 is used to introduce the test plan and the system.
- Section 2 is used to describe test items and features.
- Section 3 is used to layout the types of tests to be performed, the objectives of the test, and the type of criticality.
- Section 4 is used to layout specific test cases by documenting test input, specific test procedures, and outcomes.
- Section 5 is used to focus on the interaction between the user and the system.
- Section 6 is used to keep track of test schedules.

- Section 7 is used for all extra information.
- Section 8 is used as an appendix.

1.6. References

[1] Tai Ramirez, Elsa, Prevent, Mitigate, and Recover (PMR) Insight Collective Knowledge System (PICK) [SRS] El Paso, TX: UTEP, 2020

[2] Spice Girls, Prevent, Mitigate, and Recover (PMR) Insight Collective Knowledge (PICK) System, El Paso, TX: UTEP, 2020

2. Test Items and Features

The following information within the table will provide information pertaining to the test items/features that will be focused on when the system will be tested, as well provide a description of the item or feature.

Test Case ID	Item/Feature	Item/Feature Description
F1	Start Project	Create a project from scratch or start a current project
F2	Database	Database
F3	Team Configuration	Access and edit team configuration
F4	Splunk Configuration	Uploading log files to Splunk and pulling log entries from Splunk into PICK
F5	Event Configuration	Access and edit event configuration
F6	Directory configuration	Access and edit directory configuration
F7	Vector Configuration	Access and edit vector configuration
F8	Icon Configuration	Access and edit icon configuration
F9	Complete Setup	Start project after setup
F10	Preferences/Settings	Edit settings at any time during the project
F11	Save	Save project immediately or by saving it manually
F12	Export Configuration	Access and edit export configuration
F13	Log File Configuration	Edit Log File Configuration and enforcement reports. Log file configuration shows cleansing, validation, and ingestion.
F14	Sort	Sort tables from ascending to descending or descending to ascending according to timestamp
F15	Graph and Table	Display and modify graph's visual features
F16	Search and Filter	Search based on keyword, filter based on source, timestamp, creator, and event type
F17	Network	Ability to share work (database) with the entire team

3. Testing Approach

The following Section will provide information concerning the approach that will be used to test the application. The table below provides grouped test suites that were created. Criticality will be defined by the degree of impact that defects within the test case will have on the overall system.

Table 1: Test Plan

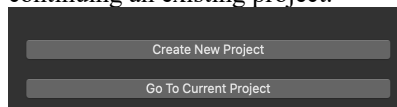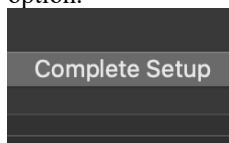| TEST SUITE <PICK>		
Description of Test Suite	This test suite contains 22 test cases to test the PICK system as well as their criticality.	
Test Case Identifier	**Objective**	**Criticality**
F1	Start Project	High
F2	Database	Normal
F3	Team Configuration	High
F4	Splunk Configuration	High
F5	Event Configuration	High
F6	Directory configuration	High
F7	Vector Configuration	High
F8	Icon Configuration	Normal
F9	Complete Setup	High
F10	Preferences/Settings	High
F11	Save	High
F12	Export Configuration	High
F13	Log File Configuration	High
F14	Sort	Normal
F15	Graph and Table	High
F16	Search and Filter	High
F17	Network	High

4. Test Cases

The following section gives a detailed description of all test cases.

The following section gives detailed descriptions of how to test each test case for F1.
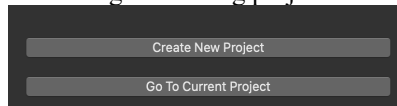
4.1. Test F1TC1

Objective: Start a new project

Test No.: F1TC1			Current Status: Pending	
Test title: Start a new project				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it.				
STEP	OPERATOR ACTION	PURPOSE .	EXPECTED RESULTS	COMMENTS
1	PICK Tool is executed.	Initial Condition	The user is given the option between creating a new project or continuing an existing project. Create New Project Go To Current Project	
2	Click the create new project option.	Start a new project	The user is asked for the project configuration. Team Configuration Splunk Configuration Event Configuration Directory Configuration Vector Configuration Icon Configuration	
3	User inputs all the project configurations (Team configuration, event configuration, directory configuration, vector configuration, and icon configuration) and clicks on the complete setup option. Complete Setup	Set up completes	Populated table and graph with the vectors are shown. Project is available for user to use.	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Ana Zepeda	Date Completed:

4.2. Test F1TC2

Objective: Open a current project

Test No.: F1TC2	Current Status: Pending
Test title: Open a current project	
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it.	

STEP	OPERATOR ACTION	PURPOSE .	EXPECTED RESULTS	COMMENTS
1	PICK Tool is executed.	Initial Condition	The user is given the option between creating a new project or continuing an existing project. Create New Project Go To Current Project	
2	Click the go to current project option.	open a pre existing project	Project is available for user to use.	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Ana Zepeda	Date Completed:

The following section gives detailed descriptions of how to test each test case for F2.

4.3. Test F2TC1

Objective: Test the database's project, vector, log file, and log entry interface

Test No.: F2TC1	Current Status: Pending

Test title: Test for the functionality of database insert functions dedicated to storing information about the project characteristics, vectors, log files and log entries
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3. Tester must also download MongoDB Compass and have it connected to the local database.

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Launch Pick Tool application	Initial condition	Pick tool will allow the tester to choose between "Create New Project" and "Go to Current Project"	
2	Select "Create New Project"	Tells the system to create a new project	Pick tool will allow the user to configure a new project through the use of many tabs.	
3	Complete all requested information with valid entries, then select "Start Ingestion"	Allows the system to know where the files which will be ingested are located	Pick will begin ingestion of files. Files are visible inside the vector database under the collection name "Log Files". "Log Entries" are also visible, containing log entries created by automatically splitting up the validated log files. The "Project" collection contains a single document filed with the project's details. The "Vector" collection contains the vectors inserted during the initialization phase.	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Ana Zepeda	Date Completed:

4.4. Test F2TC2

Objective: Test the log entry-database interface

Test No.: F2TC2	Current Status: Pending

Test title: Test for the completeness and functionality of database interface functions dedicated to log entries (retrieval, editing, deleting)				
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3. Tester must also download MongoDB Compass and have it connected to the local database.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Launch Pick Tool application	Initial condition	Pick tool will allow the tester to choose between "Create New Project" and "Go to Current Project".	
2	Select "Go to Current Project"	Displays and retrieves log entries that can be modified	Pick tool will display the available log entries in a table format.	
3	Right-click on any given log entry	Determines what file is to be modified	Tester is given the choice to edit the log entry or delete it.	
4	User selects to edit the log entry	Determines that the log entry shall be edited	A display of labels with descriptors for the data as well as editable text fields containing the data itself is displayed.	
5	User selects a text field they would like to edit, then edits the text field in a noticeable way	Determines how the log entry will be edited	The system accepts the changes and dismisses the pop-up for editing. In MongoDB Compass, the changes to the log entry are reflected.	
6	Repeat step 3	Determines what file will be deleted	Tester is given the choice to edit the log entry or delete it.	
7	User selects to delete the log entry	Determines that the selected log entry will be deleted	The system gives a toast message and MongoDB Compass reflects the deletion of the log entries.	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Ana Zepeda		Date Completed:		

4.5.   Test F2TC3

Objective: Test the vector-database interface

Test No.: F2TC3	Current Status: Pending

Test title: Test for the completeness and functionality of database interface functions dedicated to log entries (retrieval, editing, deleting)				
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3. Tester must also download MongoDB Compass and have it connected to the local database.				
STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	Launch Pick Tool application	Initial condition	Pick tool will allow the tester to choose between "Create New Project" and "Go to Current Project".	
2	Select "Go to Current Project"	Displays and retrieves vectors that can be modified	Pick tool will display the available vectors in a list format.	
3	Right-click on any given vector	Determines what file is to be modified	Tester is given the choice to edit the vector or delete it.	
4	User selects to edit the vector	Determines that the vector shall be edited	A display of labels with descriptors for the data as well as editable text fields containing the data itself is displayed.	
5	User selects a text field they would like to edit, then edits the text field in a noticeable way	Determines how the vector will be edited	The system accepts the changes and dismisses the pop-up for editing. In MongoDB Compass, the changes to the log entry are reflected.	
6	Repeat step 3	Determines what vector will be deleted	Tester is given the choice to edit the vector or delete it.	
7	User selects to delete the vector	Determines that the selected vector will be deleted	The system gives a toast message and MongoDB Compass reflects the deletion of the log entries.	

8	Select a log entry or log entries from the log entry table then the vector to add them to	Determines the log entry or log entries that will be added to a vector and which vector they will be added to	The system gives a toast message and MongoDB Compass reflects the addition of the log entries and corresponding nodes to the vector. New nodes are added to the "Nodes" collection" and an association between those nodes and the log entries and the vectors that hold them is made.	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Ana Zepeda		Date Completed:		

4.6. Test F2TC4

Objective: Test the node-database interface

Test No.: F2TC4			Current Status: Pending	
Test title: Test for the completeness and functionality of database interface functions dedicated to nodes (retrieval, editing, deleting).				
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3. Tester must also download MongoDB Compass and have it connected to the local database.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Launch Pick Tool application	Initial condition	Pick tool will allow the tester to choose between "Create New Project" and "Go to Current Project".	
2	Select "Go to Current Project"	Allows the user to navigate to the node modification table	Pick will display the current project screen which includes buttons to navigate to the graph	
3	Select the desired vector and "Graph"	Leads the user to the graph area	Pick will display the graph of the current vector. Options to go to table view and split view are shown	

4	Select "Table"	Allows users to modify nodes	Pick will display a table of the nodes and their attributes	
5	Select the add node button	User chooses to add a node for the vector corresponding to the table shown	The system updates the screen to include a new node with all categories set to defaults	
6	Double-click the text on the node/attribute which will be modified and type over it	User changes an attribute for the given node to the chosen text	The system accepts the changes and updates the screen to reflect this. In MongoDB Compass, the changes to the node are reflected.	
7	Right-click on the node id	System identifies the source node of the relationship	The system displays a menu with options to delete, add a relationship or delete a relationship	
8	Tester selects to add a relationship	System identifies the desired action	The system prompts the user for the destination node	
9	Tester inputs the destination node	System identifies the desired destination node	The system accepts the changes and updates the screen to reflect this. In MongoDB Compass, the "Relationship" connection includes a new document which is linked to the source and destination nodes.	
10	Right-click on the node id	System identifies the source node of the relationship	The system displays a menu with options to delete, add a relationship or delete a relationship	
11	Tester selects to delete a relationship	System identifies the desired action	The system prompts the user for the destination node of the relationship the tester wishes to delete	
12	Tester inputs the destination node	System identifies the correct relationship to delete	The system accepts the changes and updates the screen to reflect this. In MongoDB Compass, the "Relationship" connection has deleted one document which is linked to the source and destination nodes.	

13	Right-click on the node id	Allows the system to identify which node will be deleted	The system displays a menu with options to delete the node, add a relationship, or delete a relationship	
14	User selects to delete the node	Identifies the action the tester wishes to take	The system displays a toast message confirming the deletion and the system updates the interface to no longer include that node. MongoDB Compass no longer contains the node within the "Node" collection. If there are no other nodes connecting the associated log entry to the vector, the log entry is no longer part of the vector's list of log entries.	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Ana Zepeda	Date Completed:

The following section gives detailed descriptions of how to test each test case for F3

4.7.   Test F3TC1

Objective: To set up the location of the project

Test No.: F3TC1			Current Status: Pending	
Test title: Team Configuration - Lead				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Analyst must already be past the initial screen.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Lead Analyst opens the team configuration tab	Initial Condition	Team configuration tab is displayed	

| 2 | Lead Analyst checks the Lead checkbox | To become lead analyst of project | Connection IP becomes grayed out and uneditable | |
| 3 | Lead analyst presses the connect button | To set up connection to databases | Connections to server will increment by 1 | |

Concluding Remarks:				
Testing Team: Spice Girls Lead: Luis Ochoa		Date Completed: N/A		

4.8. Test F3TC2

Objective: To set up the location of the project

Test No.: F3TC2			Current Status: Pending	
Test title: Team Configuration - Analyst				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it.Analyst must already be past the initial screen.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Analyst opens the team configuration tab	Initial Condition	Team configuration tab is displayed	
2	Analyst uncheck the "Lead" checkbox	To inform the system the user will be a regular analyst for this project	The IP Address will be accessible and editable	
3	Analyst will enter a valid IP Address that has a project already started.	To connect to a project	The IP address will be accepted as valid	
4	Analyst will select the "Connect " button	To connect to a project	The number of connections will increment by 1	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Luis Ochoa		Date Completed: N/A		

The following section gives detailed descriptions of how to test each test case for F4.

4.9. Test F4TC1

Objective: Upload log files to splunk

Test No.: F4TC1			Current Status: Passed	
Test title: Upload log files to splunk				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. You also need Splunk enterprise installed on your device and connected and your username and password for splunk should be edited into the splunk_handler.py file. The username and password should be edited in the following line: client = SplunkHandler('localhost', 8089, 'index', 'username', 'password') You also need log files to push onto splunk.				
STEP 1	OPERATOR ACTION Edit the path of the file in the splunk_handler code as the following: client.upload_file("path", 'index')	PURPOSE Initial step	EXPECTED RESULTS The path of the file is set.	COMMENTS
2	Run the splunk_handler code to upload the log file into splunk.	upload to splunk	Log file is uploaded to splunk	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Dima AbdelJaber			Date Completed: 02/26/2020	

4.10. Test F4TC2

Objective: Pulling log entries from splunk into PICK

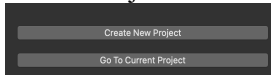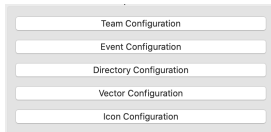| Test No.: F4TC2			Current Status: Pending	
Test title: Pulling log entries from splunk into PICK				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. You also need Splunk enterprise installed on your device and connected and your username and password for splunk should be edited into the splunk_handler.py file. The username and password should be edited in the following line: client = SplunkHandler('localhost', 8089, 'index', 'username', 'password') You also need log files to push onto splunk.				
STEP 1	OPERATOR ACTION Edit the path of the file in the splunk_handler code as the following: client.upload_file("path", 'index')	PURPOSE Initial step	EXPECTED RESULTS The path of the file is set.	COMMENTS
2	Run the splunk_handler code to upload the log file into splunk.	upload to splunk	Log file is uploaded to splunk and is downloaded into the PICK tool. The table is populated.	
Concluding Remarks:				

Testing Team: Spice Girls Lead: Dima AbdelJaber	Date Completed: N/A

The following section gives detailed descriptions of how to test each test case for F5.
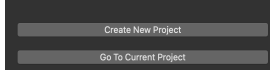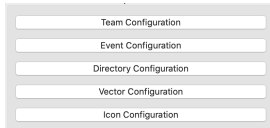
4.11. Test F5TC1

Objective: Test Event Configuration

Test No.: F5TC1			Current Status: Passed	
Test title: Test for completeness of the Event Configuration GUI				
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	PICK Tool is executed.	Initial condition	The system prompts whether the user would like to "Start a New Project" or "Go To Current Project" 	
2	User selects "Start a New Project"	Navigates towards Event Configuration	The system displays a list of buttons 	
3	User selects "Event Configuration"	Navigates towards Event Configuration	The system displays the following text entries 	
4	User fills out the text entries and data contained in all other tabs, then selects "Start Ingestion"	Furnishes system with data for ingestion and requests that ingestions begin	The system goes through ingestion and uses the time stamps to determine if a log entry will be validated	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Ana Zepeda			Date Completed:04/27/2020	

The following section gives detailed descriptions of how to test each test case for F6.

4.12. Test F6TC1

Objective: Test Event Configuration

Test No.: F6TC1			Current Status: Passed	
Test title: Test for completeness of the Event Configuration GUI				
Testing approach: In order to complete this test, the tester must have the picktool-team15-spicegirls project downloaded on a platform that is compatible with python3.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	PICK Tool is executed.	Initial condition	The system prompts whether the user would like to "Start a New Project" or "Go To Current Project"	
2	User selects "Start a New Project"	Navigates towards Directory Configuration	The system displays a list of buttons	
3	User selects "Directory Configuration"	Navigates towards Directory Configuration	The system displays the following data prompts	
4	User selects the button with ellipses next to the root directory line	Request for file picker	File picker is displayed	
5	User navigates towards the desired root folder then selects "open"	User-friendly way of selecting a valid file	The data prompt is filled with the path to the folder	
6	Repeat Steps 4-5 for "Blue Team Folder", "Red Team Folder", "White Team Folder"			
7	User fills out the text entries and data contained in all other tabs, then selects "Start Ingestion"	Furnishes system with data for ingestion and	The system goes through ingestion and uses the folders to find the files to process. Cleansing,	

		requests that ingestions begin	Validation, and ingestion status is shown in log file configuration (F13). Transcription is also done and shown in the files. Go back to the directory of files ingested to view the transcribed files.	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Ana Zepeda			Date Completed:04/27/2020	

The following section gives detailed descriptions of how to test each test case for F7.

4.13. Test F7TC1

Objective: The objective of this test case is to ensure that the program can successfully create and add a new vector in a new project.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls.

Test No.: F7TC1			Current Status: Passed	
Test title: Create a new vector in a new project.				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Double click the PICK.exe executable file.	Initial conditions, start the PICK program.	A new window labeled "PICK" will show up, it contains 3 options: create new project, open project, and server options.	
2	Click on the button "Create New Project".	Prompt the settings window used when creating a new project.	The previously opened PICK window will close and a new window labeled PICK settings will open displaying the default configuration panel..	

3	On the left area of the window, locate and click the button "Vector Configuration".	Display the Vector configuration panel within the existing window.	The right side of the window will display the vector configuration panel.	
4	Locate and click the "Add Vector" button on the right side of the screen.	Open the add vector window.	A new window labeled "Add Vector" will appear.	
5	On the "Add Vector" window, locate the fields: "Vector name", and "Vector description". Then type sample name under "vector name", and sample description under "vector description". Click on the "Accept" button.	Create a new vector with dummy data.	The "Add Vector" window will close and an entry will be added to the vector configuration table.	

Concluding Remarks: The vector is now available in and out of the PICK settings window.	
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez	Date Completed: 04/27/20

4.14. Test F7TC2

Objective: The objective of this test case is to ensure that the program can successfully edit a vector in a new project.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. In order to execute this test case, the tester will need to execute the test case: F7TC1 first.

Test No.: F7TC2	Current Status: Passed
Test title: Edit an existing vector	

Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	On the panel "Vector Configuration" click the entry named "sample name".	Show the edit vector button.	A new button labeled "Edit Vector" will appear below the vector configuration table.	
2	Locate and click the "Edit Vector" button on the right side of the screen.	Open the edit vector window.	A new window labeled "Edit Vector" will appear.	
3	On the "Edit Vector" window, locate the fields: "Vector name", and "Vector description". Then override the vector name field with <u>name changed.</u> Click on the "Accept" button.	Edit the vector name with dummy data.	The "Edit Vector" window will close and the entry will be updated on the vector configuration table.	
Concluding Remarks: The vector is now available in and out of the PICK settings window.				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: 04/27/20		

4.15. Test F7TC3

Objective: The objective of this test case is to ensure that the program can successfully delete a vector in a new project.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. In order to execute this test case, the tester will need to execute the test case: F7TC1 first.

Test No.: F7TC3	Current Status: Passed

Test title: Delete an existing vector				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	On the panel "Vector Configuration" click the entry named "sample name".	Show the Delete vector button.	A new button labeled "Delete Vector" will appear below the vector configuration table.	
2	Select the Vector(s) you would like to be deleted.	Select vectors to delete	Vectors are selected	
3	Locate and click the "Delete Vector" button on the right side of the screen.	Delete vectors	Vectors are deleted.	
Concluding Remarks: The vector is now deleted.				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: 04/27/20		

The following section gives detailed descriptions of how to test each test case for F8.

4.16. Test F8TC1

Objective: The objective of this test case is to ensure that the program can successfully add an image to be used as an icon.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. The file *sampleIcon.png* under the TestingFiles directory will be required for this test case.

Test No.: F8TC1	Current Status: Passed
Test title: Add an image to the icon collection.	

Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Double click the PICK.exe executable file.	Initial conditions, start the PICK program.	A new window labeled "PICK" will show up, it contains 3 options: create new project, open project, and server options.	
2	Click on the button "Create New Project".	Prompt the settings window used when creating a new project.	The previously opened PICK window will close and a new window labeled PICK settings will open displaying the default configuration panel..	
3	On the left area of the window, locate and click the button "Icon Configuration".	Display the Icon configuration panel.	The right side of the window will display the Icon configuration panel.	
4	Locate and click the "Add Icon" button on the right side of the screen.	Open the directory file searching window.	A new window labeled "Choose image" will appear.	
5	On the "Choose image" window, locate and click the image file *sampleIcon.png*. Locate the icon name field, and type: "Sample Icon". Click on the "Accept" button.	Add an image to use as an icon.	The "Choose image" window will close and an entry will be added to the icon configuration table displaying the data provided in the previous steps.	
Concluding Remarks: The added icon will now be usable by the graphing interface.				

Testing Team: Spice Girls Testing Lead: Ricardo Sanchez	Date Completed: 04/27/20

4.17. Test F8TC2

Objective: The objective of this test case is to ensure that the program can successfully edit an icon.

Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. The file *sampleIcon.png* under the TestingFiles directory will be required for this test case. In order to execute this test case, the tester will need to execute the test case: F8TC1 first.

Test No.: F8TC2			Current Status: Passed	
Test title: Edit an icon.				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Select an Icon and locate and click the "Edit Icon" button on the right side of the screen.	initial step	Display editing window	
2	Edit the icon name, the icon source, or add a new image	Edit icon.	Icon is edited.	
Concluding Remarks: The edited icon will now be usable by the graphing interface.				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez			Date Completed: 04/27/20	

4.18. Test F8TC3

Objective: The objective of this test case is to ensure that the program can successfully delete an icon.

Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. The file *sampleIcon.png* under the TestingFiles directory

will be required for this test case. In order to execute this test case, the tester will need to execute the test case: F8TC1 first.

Test No.: F8TC3	Current Status: Passed
Test title: Delete an icon.	
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Select the Icon(s) you would like deleted.	initial step	Icons are selected	
2	Locate and click the "delete Icon" button on the right side of the screen.	delete icon.	Icon is deleted.	

Concluding Remarks: The deleted icon will now no longer be usable by the graphing interface.	
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez	Date Completed: 04/27/20

The following section gives detailed descriptions of how to test each test case for F9.

4.19. Test F9TC1

Objective: The objective of this test case is to ensure that the program can successfully complete settings setups and populate the tables and graphs.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. In order to execute this test case, the tester will need to execute the test suite: F1, F3, F4, F5, F6, F7, F8, F9,, F15, and F17 first.

Test No.: F9TC1	Current Status: Pending
Test title: Complete Setup	

Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	One all setup in the 'PICK Setting' view is complete, find the 'Complete Setup' button and click it.	initial step	PICK setting window is exited and the main window opens. All the tables are populated with information provided in the test suites F1, F3, F4, F5, F6, F7, F8, F9,, F15, and F17.	
Concluding Remarks: The table and graph are ready to work with.				
Testing Team: Spice Girls Testing Lead: Dima AbdelJaber		Date Completed: N/A		

The following section gives detailed descriptions of how to test each test case for F10.

4.20. Test F10TC1

Objective: The objective of this test case is to ensure that the program can return to the settings after completing setup.

Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. In order to execute this test case, the tester will need to execute the test suite: F1, F3, F4, F5, F6, F7, F8, F9,, F15, and F17 first.

Test No.: F10TC1		Current Status: Passed		
Test title: Return to settings				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Once in the main window, locate "File" on the top left corner and click on it.	initial step	Drop down window opens.	

	File Edit		File | Edit \ Save ✓ Auto-Save Export... Settings Version C		
2	In the drop down menu, select Settings	Open settings	Settings window opens		

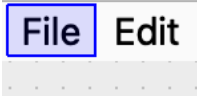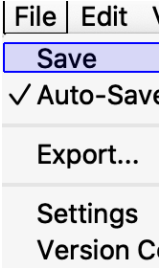|	
Concluding Remarks:	
Testing Team: Spice Girls Testing Lead: Ana Zepeda	Date Completed: April 27, 2020

The following section gives detailed descriptions of how to test each test case for F11.

4.21. Test F11TC1

Objective: The objective of this test case is to ensure that the program can Save.
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. In order to execute this test case, the tester will need to execute the test suite: F1, F3, F4, F5, F6, F7, F8, F9,, F15, and F17 first.

Test No.: F11TC1	Current Status: Pending
Test title: Save	
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.	

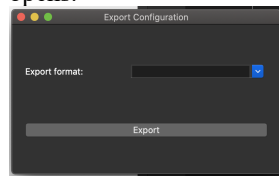| STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	When you would like to save, go to file > save. Click save.	initial step	Directory opens that allows you to pick where you would like to save.	
2	Pick a path to save it and click save	Save	CSV file is saved.	

Concluding Remarks:	
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez	Date Completed: N/A

The following section gives detailed descriptions of how to test each test case for F12.

4.22. Test F12TC1

Objective: Open and edit export configuration
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls.

Test No.: F11TC1	Current Status: Pending
Test title: Open export configuration	
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	When you would like to export, go to file > export. Click Export.	initial step	Export configuration opens. 	
2	Select export format and click on export	export	Exported project is exported in selected format	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: N/A		

The following section gives detailed descriptions of how to test each test case for F13.

4.23. Test F13TC1

Objective: The objective is to open and edit log file configuration and view cleansing, validation, and ingestion status.

Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required.

Test No.: F13TC1			Current Status: Pending	
Test title: Open and edit log file configuration				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	When you would like to view and edit the log file configuration, go to file > log file configuration. Click on log file configuration.	initial step	log file configuration opens. Cleansing status, validation status, and ingestion status are shown.	
2	Click on fields with the status "Action needed" and edit the line or keep it the same and click on validate.	validate error	Error is validated.	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Dima AbdelJaber			Date Completed: N/A	

The following section gives detailed descriptions of how to test each test case for F14.

4.24. Test F14TC1

Objective: Sorting by a column in a table.

Test No.: F14TC1	Current Status: Pending
Test title: Sorting by a column in a table.	

Testing approach: Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click the column name on any of the tables.	Initiate sort action	Columns are sorted by respective content, keeping entry integrity across the row on that table.	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Scott Honaker		Date Completed:		

The following section gives detailed descriptions of how to test each test case for F15.

4.25. Test F15TC1

Objective: The objective is to add a node
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required.

Test No.: F15TC1		Current Status: Passed		
Test title: Add node				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Add node" in the graph area in the main window	initial step	A pop up window will appear and will ask you to fill out the name of the node, the label, the image and the type.	

2	Fill out the name of the node, the label, the image and the type. Then click ok	create node	Node is created and displayed in the graph area. All changes are updated in the table view.	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: April 27, 2020		

4.26. Test F15TC2

Objective: The objective is to add an edge
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. This test case requires at least two nodes to exist in the graph.

Test No.: F15TC2	Current Status: Passed
Test title: Add an edge	
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Add Edge" in the graph area in the main window	initial step	Add edge button is highlighted	
2	Click on one of the nodes you want connected to the other and hold down and drag to the next node then let go.	create an edge	An edge is created and displayed in the graph area. All changes are updated in the table view.	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: April 27, 2020		

4.27. Test F15TC3

Objective: The objective is to remove a node
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. This test case requires a node to already exist.

Test No.: F15TC3	Current Status: Passed

Test title: Remove node

Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Remove node" in the graph area in the main window	initial step	Remove node button is highlighted	
2	click on the node you would like removed	remove a node	The node is removed. All changes are updated in the table view.	

Concluding Remarks:	
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez	Date Completed: April 27, 2020

4.28. Test F15TC4

Objective: The objective is to remove an edge
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. This test case requires an edge to exist.

Test No.: F15TC4	Current Status: Passed

Test title: Remove an edge

Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Remove Edge" in the graph area in the main window	initial step	Remove edge button is highlighted	
2	Click on the edge you would like to remove	remove an edge	An edge is removed. All changes are updated in the table view.	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: April 27, 2020		

4.29. Test F15TC5

Objective: The objective is open an existing graph
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. This test case requires a graph to exist.

Test No.: F15TC5	Current Status: Passed
Test title: Open a graph	
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Open" in the graph area in the main window	initial step	Opens a directory	

2	select graph and click open	open graph	graph opens. The graph is displayed in the table view as well.	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: April 27, 2020		

4.30. Test F15TC6

Objective: The objective is to save a graph
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. This test case requires a graph to be saved.

Test No.: F15TC6		Current Status: Passed		
Test title: Save a graph				
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "Save" in the graph area in the main window	initial step	Opens a directory	
2	select path and name and click save	save graph	graph saves	
Concluding Remarks:				
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez		Date Completed: April 27, 2020		

4.31. Test F15TC7

Objective: The objective is to open a new empty graph
Notes: This test case should take no more than 5 minutes to complete and report back. The PICK tool software will be provided as an executable file by the team Spice Girls. Test suites F1, F3-F9, and F17 are required. .

Test No.: F15TC7			Current Status: Passed		
Test title: Open a new graph					
Testing approach: This test will be conducted manually by the assigned tester. The results will be observed through the display of the user interface once the program starts running.					
STEP	OPERATOR ACTION		PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click "New" in the graph area in the main window		initial step	New and emptyGraph opens	
Concluding Remarks:					
Testing Team: Spice Girls Testing Lead: Ricardo Sanchez			Date Completed: April 27, 2020		

The following section gives detailed descriptions of how to test each test case for F16.

4.32. Test F16TC1

Objective: Search can handle empty field

Test No.: F16TC1		Current Status: Pending	
Test title: Empty field test			
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.			
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS

	1	Click search button when search bar is empty	Ensure search function can handle an empty value properly	Table should have the same content unchanged in any way.	

Concluding Remarks:

Testing Team: Spice Girls Lead: Scott Honaker	Date Completed:

4.33. Test F16TC2

Objective: Search can handle keyword

Test No.: F16TC2	Current Status: Pending
Test title: Keyword field test	
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Enter keyword into the search field	Fill the field with keyword to test in next step	Keyword in search field, nothing else changed	
2	Click search button	Test acceptance of keyword search	Tables only displaying entries that reflect keyword input into the search bar	

Concluding Remarks:

Testing Team: Spice Girls Lead: Scott Honaker	Date Completed:

4.34. Test F16TC3

Objective: Search can handle keyword phrases(2+ words)

Test No.: F16TC3			Current Status: Pending	
Test title: Keyphrase field test				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Enter keyword phrase into search field	Fill the field with keyword phrase to test in next step	Keyword phrase in search field, nothing else changed	
2	Click search button	Test acceptance of keyword phrase search	Tables only displaying entries that reflect keyword phrase input into the search bar	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Scott Honaker			Date Completed:	

4.35. Test F16TC4

Objective: Search can handle special characters

Test No.: F16TC4	Current Status: Pending
Test title: Special character test	

Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Enter special characters into search field	Fill search field with special characters to test in next step	Special characters in search field, nothing else changed	
2	Click search button	Test acceptance of special characters search	Tables only displaying entries that reflect special characters input into the search bar	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Scott Honaker		Date Completed:		

4.36. Test F16TC5

Objective: Search can handle numbers

Test No.: F16TC5		Current Status: Pending		
Test title: Number field test				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Enter numbers into the search field	Fill search field with numbers to test in next step	Numbers in search field, nothing else changed	

2	Click search button	Test acceptance of numbers search	Tables only displaying entries that reflect numbers input into the search bar	
Concluding Remarks:				
Testing Team: Spice Girls Lead: Scott Honaker		Date Completed:		

4.37. Test F16TC6

Objective: Filter selection will limit tables to filter option selected

Test No.: F16TC6			Current Status: Pending	
Test title: Filter field test				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click cog button above table	Open filter options	Popup window with filter options will appear	
2	Click desired filter option	Select desired filtered option	Checkbox will become checked on the option selected	
3	Click apply button	Apply selected filter options	Tables will only display entries that reflect the filter option selected	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Scott Honaker	Date Completed:

4.38. Test F16TC7

Objective: Search while filter option is applied

Test No.: F16TC1			Current Status: Pending	
Test title: Search filtered test				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Splunk enterprise must be installed and logged in for searching and sorting to work. You must have content in the tables to verify that the test ran correctly.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Click cog button above table	Open filter options	Popup window with filter options will appear	
2	Click desired filter option	Select desired filter option	Checkbox will become checked on the options selected	
3	Click apply button	Apply selected filter options	Tables will only display entries that reflect the filter option selected	
4	Enter a value into the search field	Fill the search field to be tested in the next step	Value in search field, tables only displaying based on filter options	
5	Click search button	Test value acceptance with filter applied	Table will only display entries that reflect both the filter applied and value input into the search bar	

Concluding Remarks:	
Testing Team: Spice Girls Lead: Scott Honaker	Date Completed:

The following section gives detailed descriptions of how to test each test case for F17.

4.39. Test F17TC1

Objective: To push the current version to the master

Test No.: F17TC1			Current Status: Pending	
Test title: Version Control - Push				
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it. Table and graph must be populated.				
STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	The analyst has made a change to the table or graph view	Initial Condition.	Their version is not the same as master	
2	The analyst selects the "Version Control" from the top menu	To open the version control screen	Version control screen is shown with changes	
3	The analyst selects the "Push" button.	To push the changes made to the master repository	A confirmation dialog box confirming the analyst their changes are pending for approval from lead	
Concluding Remarks:				
Testing Team: Lead: Luis Ochoa			Date Completed: N/A	

4.40. Test F17TC2

Objective: To pull the current version from the master

Test No.: F17TC2	Current Status: Pending
Test title: Version Control - Pull	
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it.Table and graph must be populated.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS "Version Control" screen is displayed	COMMENTS
1	The analyst selects the "Version Control" from the top menu	Initial Condition		
2	The analyst selects the "Pull" button.	To make changes to the master repository	The analyst is informed that the pull was successful and is now up to date with master.	

Concluding Remarks:		
Testing Team: Lead : Luis Ochoa		Date Completed: N/A

4.41. Test F17TC3

Objective: To approve proposed changes to the master

Test No.: F17TC3	Current Status: Pending
Test title: Version Control - Approve Changes	
Testing approach: To run this test, you need access to the pick-tool-team15-spicegirls repository. You also need python 3 installed to be able to run it.Table and graph must be populated.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	Lead Analyst selects the "Version Control" from the top menu	Initial Condition	"Version Control" screen is displayed	
2	Lead selects the checkboxes of the item changes he wants to approve	To select the desired changes to be approved .	The selected items stay selected	
3	Lead selects the "Approve Changes" button	To approve selected changes to the master repository	Dialog box confirms lead analyst changes were approved. Dialog box confirms the analyst that made the push of changes approved.	

Concluding Remarks:		
Testing Team: Lead: Luis Ochoa		Date Completed: N/A

5.   User Interface Testing

Not Applicable.

6. Test Schedule

The following is the testing schedule.

Task	People	Description and Date
F1	Ana	TBD
F2	Ana	TBD
F3	Luis	TBD
F4	Dima	TBD
F5	Ana	TBD
F6	Ana	TBD
F7	Ricardo	TBD
F8	Ricardo	TBD
F9	Dima	TBD
F10	Ana	TBD
F11	Ricardo	TBD
F12	Ricardo	TBD
F13	Dima	TBD
F14	Scott	TBD
F15	Ricardo	TBD
F16	Scott	TBD
F17	Luis	TBD

7.   Other Sections

Not Applicable.

8.   Appendix

8.1. 8.1. GitHub Repository

All the files used can be found on github.

https://github.com/CS4311-spring-2020/pick-tool-team15-spicegirls

$