Team 6: Team404

Prevent, Mitigate, and Recover (PMR) Insight Collective Knowledge System (PICK)
Test Plan
Version 3.0
05/08/2020

Document Control

Approval

The Guidance Team and the customer shall approve this document.

Document Change Control

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Distribution List

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Change Summary

The following table details changes made between versions of this document

Version	Date	Modifier	Description
1.0	04/14/2020	Alex Z & Matt M	Initialized baseline
1.1	04/15/2020	Matt Montoya	Updated Section 1
1.2	04/24/2020	Alejandro Zamora	Updated Sections 2 & 3

1.3	04/24/2020	Alejandro Zamora	Updated appendix; added Section 4
1.4	04/25/2020	Alejandro Zamora	Added more tests to section 3 and 4
1.5	04/26/2020	Matt Montoya	Fixed grammar & formatting issues
1.6	04/26/2020	Matt Montoya	Reviewed current test cases
1.7	04/26/2020	Alejandro Zamora	Added test cases to section 4
2.0	04/27/2020	Matt Montoya	Fixed grammar & formatting issues
2.2	05/01/2020	Eddy Todd	Reviewed results for product improvement
2.5	05/04/2020	Alex Z & Matt M	Initialized new tests based on code improvements
2.8	05/04/2020	Alex Zamora	Added test cases
2.9	05/07/2020	Alex Zamora	Completed test suite
3.0	05/08/2020	Matt M	Verified test suite output; fixed grammar & formatting issues

TABLE OF CONTENTS

1. Introduction

Section 1 introduces the PICK Tool Test Plan. This introduction includes the purpose and scope of the document, as well as an overview of the PICK system, and establishes the conditions that shall be met to suspend or exit a test. All references applicable to the test plan, including the SRS and SDD, can be found in this section.

1.1. Purpose

The purpose of this Project Test Plan is to formally define the kinds of tests to be run, the precise tests to be run on the PICK Tool system, and the approach to running these tests. Testing of PICK Tool is an element of producing and ensuring quality software. These tests should identify any errors in the software deliverable and serve as a basis for removing defects in the system. The end goal is to ensure that the program is correct; that is, the program satisfies the specification(s) set forth by the customer.

1.2. Scope

This software release (AKA *Software Version*) encompassed by this test plan includes version 1.0.0. This version is the version that was presented to the clients on 05 May 2020.

1.3. System Overview

PICK Tool is a system that allows for adversarial assessment when it comes to cyber-attacks. The system will be able to allow analysts to examine a red team's actions and blue team's actions through this assessment. The PICK Tool will allow the user to add vectors, relations, and ingest logs into the system while also showing a visual representation which would be a graphing function.

1.4. Suspension and Exit Criteria

Team404 defines Suspension and Exit Criteria as follows—

Suspension of testing may occur if there is a hardware malfunction where data is unrecoverable or if a highly critical test fails; that is, it has less than a 100% pass rate.

Exit of testing may occur if a highly critical test has a 100% pass rate, if a low critical test has at least 90% pass rate, and if the overall system has at least a 97% pass rate.

1.5. Document Overview

1.5.1. Introduction

Section 1 introduces the PICK Tool Test Plan. This introduction includes the purpose and scope of the document, as well as an overview of the PICK system, and establishes the conditions that shall be met to suspend or exit a test. All references applicable to the test plan, including the SRS and SDD, can be found in this section.

1.5.2. Test Items & Features

Section 2 describes the test items (e.g., components, classes, functions or methods) and the features to be tested.

1.5.3. Testing Approach

Section 3 details the testing approach Team404 has selected. This description includes specifying the types of tests to be performed, e.g., tests designed to exercise system functions one by one; tests designed to exercise sequences of functions that approximate operational use of the system; tests designed to stress the system to its design and requirements limits.

1.5.4. GUI Functionality Test Suite

Section 4 documents test input, specific test procedures, and outcomes, as well as establish test methods, and explains the nature and extent of each test, as they relate to the GUI of PICK Tool.

1.5.5. User Interface Testing

Section 5 focuses on the interaction between the user and the system. This testing includes the following traits: Consistent terminology, menu selections, and presentation, grammar, and error handling that will inform user of critical operations.

1.5.6. Test Schedule

Section 6 specifies the schedule for testing activities as they pertain to PICK Tool.

1.5.7. Other Sections

Section 7 contains other sections. These requirements come from the SRS Document, written by the guidance team, and the code, written by Team404.

1.5.8. Appendix

Section 8 contains an appendix of figures (or images) depicting the GUI. These figures are referenced throughout the PICK Tool Test Plan.

1.6. References

1.6.1. Document Template

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

[2] 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.

[3] Supplementary information is from:
Pfleeger, S. *Software Engineering, Theory and Practice*. Upper Saddle River, NJ: Prentice Hall, 1998, p. 365.

1.6.2. PICK Tool SRS

[4] E. Tai-Ramirez & S. Roach, SRS_v7. Internet: https://github.com/CS4311-spring-2020/pick-tool-team06-team-404/blob/master/doc/SRSv7.pdf, 2020 (Jan. 30, 2020).

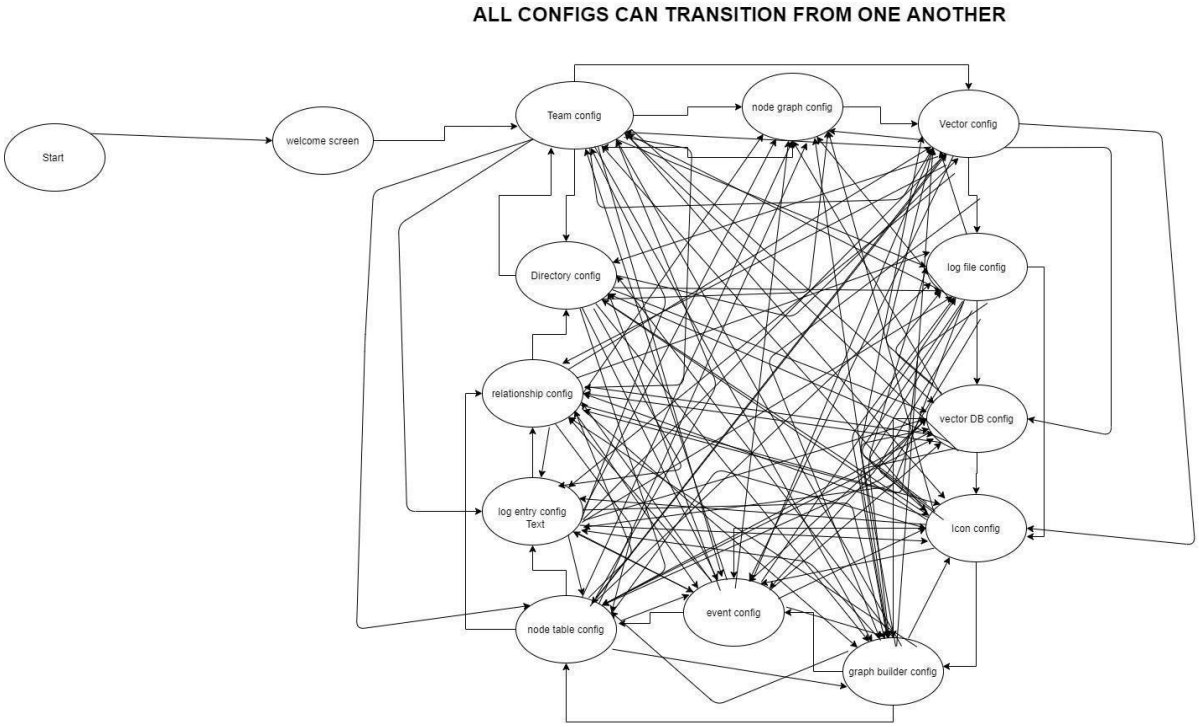
1.6.3. PICK Tool SDD

[5] A. Zamora, E. J. Todd, J. N. Torres, J. I. Felix, and M. S. Montoya, "Prevent, Mitigate, and Recover (PMR) Insight Collective Knowledge System (PICK) Tool Software Design Document," 31-Mar-2020. [Online]. Available: https://github.com/CS4311-spring-2020/pick-tool-team06-team-404/blob/master/doc/sdd/Team6Team404SDD.pdf. [Accessed: 14-Apr-2020].

2. Test Items and Features

The test items down below describe the system. These items given below give more specific information on the picktool.py.

2.1 Configurations Diagram



3. Testing Approach

Section 3 details the testing approach Team404 has selected. This description includes specifying the types of tests to be performed, e.g., tests designed to exercise system functions one by one; tests designed to exercise sequences of functions that approximate operational use of the system; tests designed to stress the system to its design and requirements limits.

3.1. Approach & Plan

The testing approach selected by Team404 to test PICK Tool is Black Box testing. This approach examines the functionality of PICK TOOL without looking at the internal structure (or code) of the system. The types of tests to be performed are designed to exercise individual system functions. Table 1 (*GUI Functionality Test Suite* [section 3.1.2]) and Table 2 (*System Functionality Test Suite* [section 3.1.2]) describes the tests to be performed as well as their *criticality*, or level of importance.

3.1.1. Table 1: GUI Functionality Test Suite

GUI Functionality Test Suite		
Description of Test Suite	This will test the GUI interactions with the user	
Test Case Identifier	**Objective**	**Criticality**
GF1	Resize of the PICK Tool window	Low
GF2	Traversability between window views	High
GF3	Can run Multiple instances of PICK Tool	Low
GF4	Can handle large paragraphs of text as input without messing up GUI formatting	Low
GF5	Persistent Information held across tabs	High
GF6	Inconsistent date and time check	High

3.1.2. Table 2: System Functionality Test Suite

System Functionality Test Suite		
Description of Test Suite	This will test the System functionality	
Test Case Identifier	**Objective**	**Criticality**
SF1	Connect to the Lead IP Address	High
SF2	Connect as a Lead IP Address	High
SF3	Event Creations	High
SF4	Start Data Ingestion	High
SF5	Add, Edit, and Delete Vector	High
SF6	Filter for Specific Keyword	Low
SF7	Export a Project	High
SF8	Push and Pull a Project	High
SF9	Build a Graph	High
SF10	Audio and Image Transcription	High

4. GUI Functionality Test Suite

Section 4 documents test input, specific test procedures, and outcomes, as well as establish test methods, and explains the nature and extent of each test, as they relate to the GUI of PICK Tool. The purpose of is to show the step by step process on how tests are performed while also listing the expected outcomes.

4.1. Table 3: Test GF1

Objective: The objective of this test is to check to see if the system is still functional when window size is changed as well as the formatting of tables.
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder.

Test No.: GF1			**Current Status**: Failed	
Test Title: Resize of the PICK Tool window				
Testing Approach: This test approach checks if the formatting of the system along with its functionality is still able work.				
STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user hovers the mouse over the bottom right hand side corner of the PICK Tool window and clicks and drag the window to the center of the screen	Resizes the PICK Tool window	The system displays the updated window to fit the new window size	
3	The user moves the mouse to the top of the window in the middle. Then clicks and drags the window to the top of their desktop screen	Resizes the PICK Tool window	The system displays the updated window to fit the new window size	The system does not display the GUI in its correct format
Concluding Remarks: The system does not resize the contents inside the window.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya			**Date Completed:** 05/05/2020	

4.2. Table 4: Test GF2

Objective: The objective of test *GF2* is to ensure views are traversable; that is, going between views is allowed from any view to another view
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: GF2	**Current Status**: Pass
Test Title: Traversability between views to another view	
Testing Approach: This test approach will see if you can navigate to the team configuration view to any other view and back to the team configuration view.	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP Address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	In the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix

10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix
11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	In the upper left-hand corner, the user clicks the option event	move to event page	The system displays the Event window	
13	In the upper left-hand corner, the user clicks the option Team	move to team page	The system displays the team window	
Concluding Remarks: The test passes. The system allows the user to traverse between windows after the necessary information has been inputted.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.3. Table 5: Test GF3

Objective: The objective of this test is to check to see if the system can run more than one instance without those instances interfering with one another.
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: GF3			**Current Status**: fail	
Test Title: Can run two instances of PICK Tool				
Testing Approach: This test approach checks if the system can run multiple instances of the PICK Tool without those instances interfering with one another				
STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user then goes back to the pick tool application directory and launches another instance of pick tool.	Starts second session of PICK Tool	The system displays the GUI and displays the team configuration page	The test fails right here since the system will not run 2 instances of pick tool
Concluding Remarks: The test fails since you cannot run multiple instances of pick tool				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.4. Table 6: Test GF4

Objective: The objective of this test is to check to see if the system can handle large inputs of text without messing up the formatting of the window and keeping the information input without cutting out information.
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: GF4	**Current Status**: pass
Test Title: Can handle large paragraphs of text as input without messing up GUI formatting	
Testing Approach: This test approach checks if the system can handle large inputs of text keeping the integrity of the input and the formatting of the window. This test you will copy and paste lyrics then ascii art checking to see if the system has truncated any information from those inputs.	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP Address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Text1 in the appendix and event description = Text2 in appendix	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix

11	The user enters vector name = Text2 and vector description = Text1 and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
Concluding Remarks: The test passes since large text does not mess with the GUI format.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.5. Table 7: Test GF5

Objective: The objective of this test is to check to see if persistent information is held across windows.
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: GF5	**Current Status**: pass
Test Title: Persistent Information held across windows	
Testing Approach: This test approach checks if information that is input into a tab is held when going to different windows	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP Address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Text3 in the appendix and event description = Text1 in appendix	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix

10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix
11	The user enters vector name = Text3 and vector description = Text1 and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	In the upper left-hand corner, the user clicks the option event	move to event page	The system displays the Event window	The information of input was held so this test passes
Concluding Remarks: **The test passes since information is persistent across all windows.**				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.6. Table 8: Test GF6

Objective: The objective of this test is to check to see if the system will not allow a user to input an end time before a start time
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: GF6	**Current Status**: pass
Test Title: Inconsistent date and time check	
Testing Approach: This test approach checks if the system does not allow the user to input invalid start time / end time in event configuration window	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP Address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Text1 in the appendix and event description = Text2 in appendix	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days before current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays an error message indicating invalid input on start and end time.	See Figure 8.4 in the Appendix

Concluding Remarks: The test passes since the system prevents the user by inputting invalid times by giving an error message.	
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya	**Date Completed:** 05/06/2020

4.7. Table 9: Test SF1

Objective: The objective of this test is to check to see if the system can connect to a Lead IP address
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF1			**Current Status**: fail	
Test Title: Connect to Lead IP address				
Testing Approach: This test approach checks if the system allows the user to connect to a Lead IP				
STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user inputs their desired Lead IP address they want to connect to in the text box labeled Lead IP address: and clicks continue	This gives the information to the system to connect to IP address	The system connects you to Lead IP address	The test fails here since there is no functionality to connect to Lead IP
Concluding Remarks: The test fails since there is no functionality to connect to Lead IP				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya			**Date Completed:** 05/06/2020	

4.8. Table 10: Test SF2

Objective: The objective of this test is to check to see if the system will allow the user to connect as an IP address.
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF2			**Current Status**: pass	
Test Title: Connect as a Lead IP address				
Testing Approach: This test approach checks if the system allows the user to connect as a Lead IP				
STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
Concluding Remarks: The test passes.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya			**Date Completed:** 05/06/2020	

4.9. Table 11: Test SF3

Objective: The objective of this test is to check to see if the system can create an event
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF3	**Current Status**: pass
Test Title: Creation of event	
Testing Approach: This test approach checks if the system allows the user can create an event	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Text1 in the appendix and event description = Text2 in appendix	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix

Concluding Remarks: The test passes.

Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya	**Date Completed:** 05/06/2020

4.10. Table 12: Test SF4

Objective: The objective of this test is to check to see if the system can ingest data
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF4	**Current Status**: pass
Test Title: Start data ingestion	
Testing Approach: This test approach checks if the system allows the user can start data ingestion	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Text1 in the appendix and event description = Text2 in appendix	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix

Concluding Remarks: The test passes since the data is visible in the log entries window.	
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya	**Date Completed:** 05/06/2020

4.11. Table 13: Test SF5

Objective: The objective of this test is to check to see if the system can add, edit and delete vectors
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF5	**Current Status**: Pass
Test Title: can add, edit and delete vectors	
Testing Approach: This test approach checks if the system allows the user can add, edit and delete vectors	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	

9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix
11	The user enters vector name = taco and vector description = bell	parameters inputted	The system displays the vector table with updated information	See Figure 8.7 in the Appendix
12	The user clicks the add vector button	adds a new vector	The system adds another vector to the window	
13	The user enters vector name = pizza and vector description = hut	parameters inputted	The system displays the vector table with updated information	
14	The user clicks the add vector button	adds a new vector	The system adds another vector to the window	
15	The user clicks on vector 2 and then clicks the delete vector button	Delete vector 2	The system deletes vector 2 from table	
16	The user clicks on vector 1 and then clicks the delete vector button	Delete vector 1	The system deletes vector 1 from table	
Concluding Remarks: The test passes.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.12. Table 14: Test SF6

Objective: The objective of this test is to check to see if the system can filter for specific keyword
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF6	**Current Status**: fail
Test Title: Filter for specific keyword	
Testing Approach: This test approach checks if the system allows the user can filter for specific keyword	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix

11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	In the upper left-hand corner the user clicks the option event	move to event page	The system displays the Event window	
13	n the upper left-hand corner the user clicks the option Team	move to team page	The system displays the team window	
Concluding Remarks: The test fails since in the system there is no functional way to filter anything.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.13. Table 15: Test SF7

Objective: The objective of this test is to check to see if the system can Export a project
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF7	**Current Status**: Pass
Test Title: Export a project	
Testing Approach: This test approach checks if the system allows the user can export a project	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix

6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix
11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	The user checks all the checkboxes of columns significant and visible	marks every entry as significant and visible in the graph	The system displays the vector table window	
13	In the bottom left-hand corner of the screen click the graph option	generates a graph	The system displays the graph window	
14	in the bottom right hand corner click the option save	This allows you to export a project	The system prompts the users for export parameters and exports the project to their local device	
Concluding Remarks: The test passes.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.14. Table 16: Test SF8

Objective: The objective of this test is to check to see if the system can push and pull a project
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF8	**Current Status**: fail
Test Title: Push and pull a project	
Testing Approach: This test approach checks if the system allows the user can push and pull a project	

STEP	OPERATOR ACTION	PURPOSE	EXPECTED RESULTS	COMMENTS
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix

11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	In the upper left-hand corner, the user clicks the option event	move to event page	The system displays the Event window	
13	n the upper left-hand corner the user clicks the option Team	move to team page	The system displays the team window	
Concluding Remarks: The test fails since in the system there is no functional way to push or pull a project inside the system.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.15. Table 17: Test SF9

Objective: The objective of this test is to check to see if the system can Build a graph
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF9	**Current Status**: Pass
Test Title: Build a graph	
Testing Approach: This test approach checks if the system allows the user can build a graph	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix

10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix
11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	The user checks all the checkboxes of columns significant and visible	marks every entry as significant and visible in the graph	The system displays the vector table window	
13	In the bottom left-hand corner of the screen click the graph option	generates a graph	The system displays the graph window	
Concluding Remarks: The test passes.				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

4.16. Table 18: Test SF10

Objective: The objective of test is to see if the system allows transcription of video and images to text files
Precondition: The PICK Tool executable (**`pick.py`**) is visible inside the **`src/controllers`** folder. The directory of red blue and white teams are populated with log files.

Test No.: SF10	**Current Status**: fail
Test Title: Video and image transcription	
Testing Approach: This test approach will see if you can convert images and videos to text files	

STEP	**OPERATOR ACTION**	**PURPOSE**	**EXPECTED RESULTS**	**COMMENTS**
1	The user executes the PICK Tool application	Starts PICK Tool session	The system displays the GUI and displays the team configuration page	Starts the system (See Figure 8.1 in the Appendix)
2	The user clicks the box lead	Launch the system as the Lead IP address	The system marks your IP as Lead IP	
3	The user clicks the option continue in the bottom right of the window.	This confirms the user as the Lead IP	The system Displays the event configuration window.	See Figure 8.2 in the Appendix
4	The user sets the event name = Test event 1 and event description = first iteration	fills the parameter of the event	The system displays user input back to them	See Figure 8.2 in the Appendix
5	The user sets start time to current day with time being 1:11:11	fills parameters of start time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
6	The user sets end time to 5 days after current day with time being 1:11:11	fills parameters of end time	The system should display a calendar for input and populates the fields the user has inputted	See Figure 8.3 in the Appendix
7	The user clicks the continue option	confirms the parameters inputted	The system Displays the directory configuration window.	See Figure 8.4 in the Appendix
8	The user clicks the browse option and selects the red blue white folders	links paths to log files with every team	The system connects the file paths of each	
9	in the bottom middle of the screen the users enters the user name = admin and password = changeme and clicks continue	This logs into Splunk and starts ingestion of log files	The system interfaces with Splunk to ingest log files and then forwards those entries to the log entries window	See Figure 8.5 in the Appendix
10	The user clicks continue	this takes you to vector page	The system displays the vector window	See Figure 8.6 in the Appendix

11	The user enters vector name = taco and vector description = bell and clicks continue	confirms the parameters inputted	The system displays the vector table window	See Figure 8.7 in the Appendix
12	In the upper left-hand corner, the user clicks the option event	move to event page	The system displays the Event window	
13	n the upper left-hand corner the user clicks the option Team	move to team page	The system displays the team window	
Concluding Remarks: The test fails since there is no visible way to transcribe video and images into text files in the system				
Testing Team: **Lead:** Alejandro Zamora Members: Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya		**Date Completed:** 05/06/2020		

5. User Interface Testing

Section 5 focuses on the interaction between the user and the system. This testing includes the following traits: Consistent terminology, menu selections, and presentation, grammar, and error handling that will inform user of critical operations.

5.1. Testing Disclaimer

Section 4 (GUI Functionality Test Suite) encompasses the totality of Section 5 in its tests.

6. Test Schedule

Section 6 specifies the schedule for testing activities as they pertain to PICK Tool.

6.1. Test Table

The table in Section 6.1.1 shows the test schedule that Team404 will follow for the test plan process. In version 2.0 of the Test Plan, the start date for testing was scheduled for April 22, 2020 and the target date for completion was within 24 hours of the start date. In the current version (version 3.0) of the test plan, the start date for testing was scheduled for April 22, 2020 and the target date for completion was within 24 hours of the start date.

All team members were responsible for being present during the testing due to their equal, combined contributions to PICK Tool. The names of those present for each test, while the V&V Lead (Alex Zamora) ran the test, are listed in *People* section of each test task in Table 19.

6.1.1. Table 19: Test Table

Date	Task	People	Description
05/05/2020	GF1	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Resize of the PICK Tool window
05/06/2020	GF2	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Traversability between views to another view
05/06/2020	GF3	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Can run Multiple instances of PICK Tool
05/06/2020	GF4	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Can handle large paragraphs of text as input without messing up GUI formatting
05/06/2020	GF5	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Persistent Information held across tabs
05/06/2020	GF6	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Inconsistent date and time check
05/06/2020	SF1	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Connect to the lead IP address
05/06/2020	SF2	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Connect as a lead IP address
05/06/2020	SF3	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Creation of event
05/06/2020	SF4	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Start data ingestion
05/06/2020	SF5	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Add, edit, and delete vector
05/06/2020	SF6	Jacob Torres, Eddy Todd, Jorge Felix,	Filter for specific keyword

		Matt Montoya, Alejandro Zamora	
05/06/2020	SF7	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Export a project
05/06/2020	SF8	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Push and pull a project
05/06/2020	SF9	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Build a graph
05/06/2020	SF10	Jacob Torres, Eddy Todd, Jorge Felix, Matt Montoya, Alejandro Zamora	Video and image transcription

7. Other Sections

Section 7 contains other sections. These requirements come from the SRS Document, written by the guidance team, and the code, written by Team404.

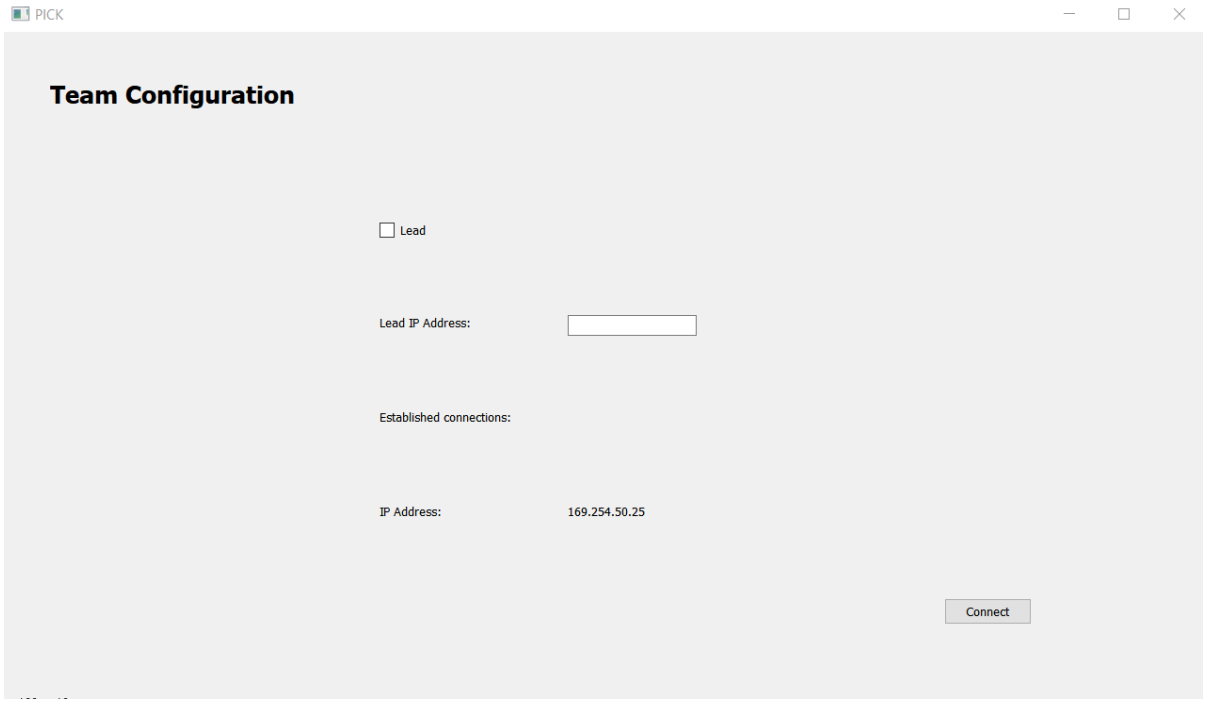
7.1. Disclosure

At this time, Team404 does not have any other sections to add.

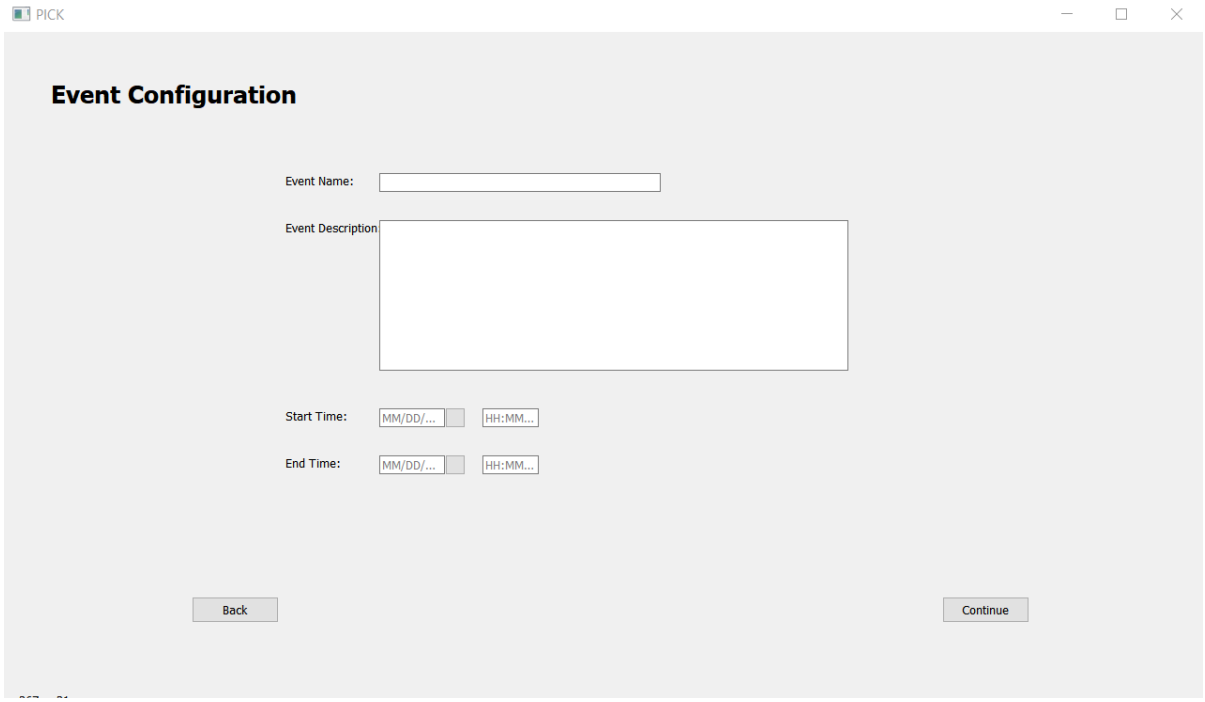
8. Appendix

Section 8 contains an appendix of figures (or images) depicting the GUI. These figures are referenced throughout the PICK Tool Test Plan

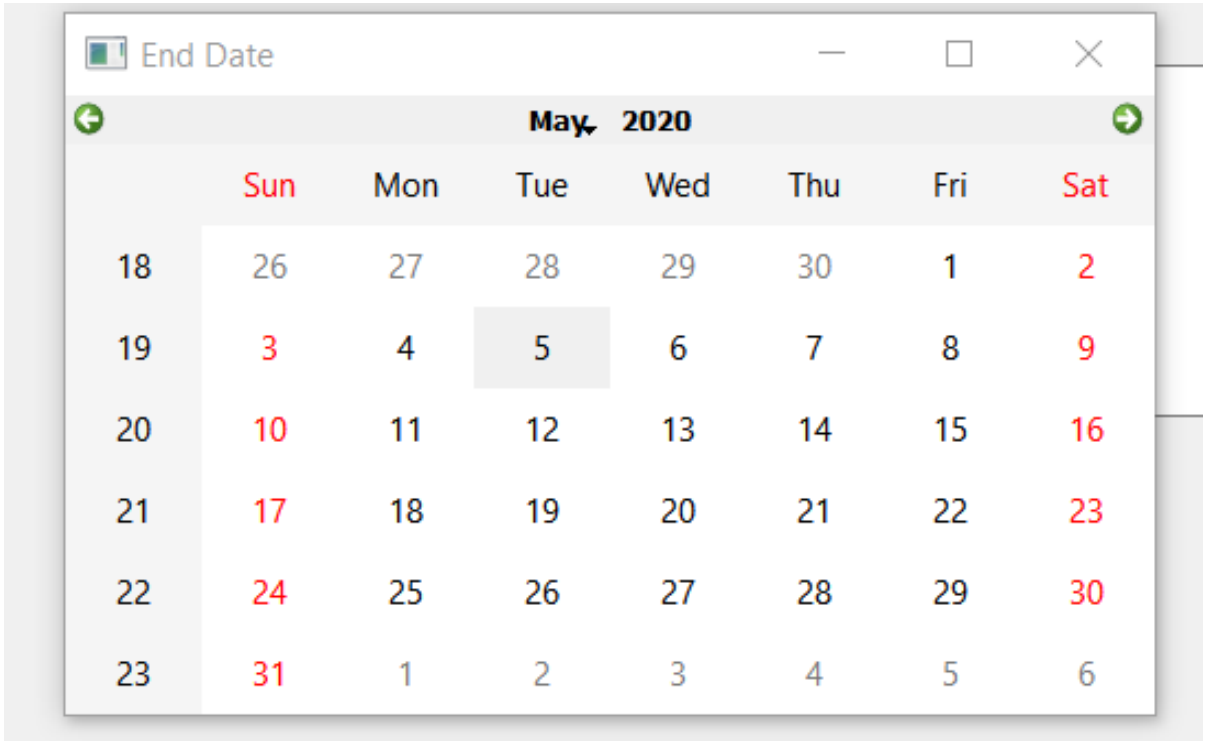
8.1. Figure 1: Team Configuration Page



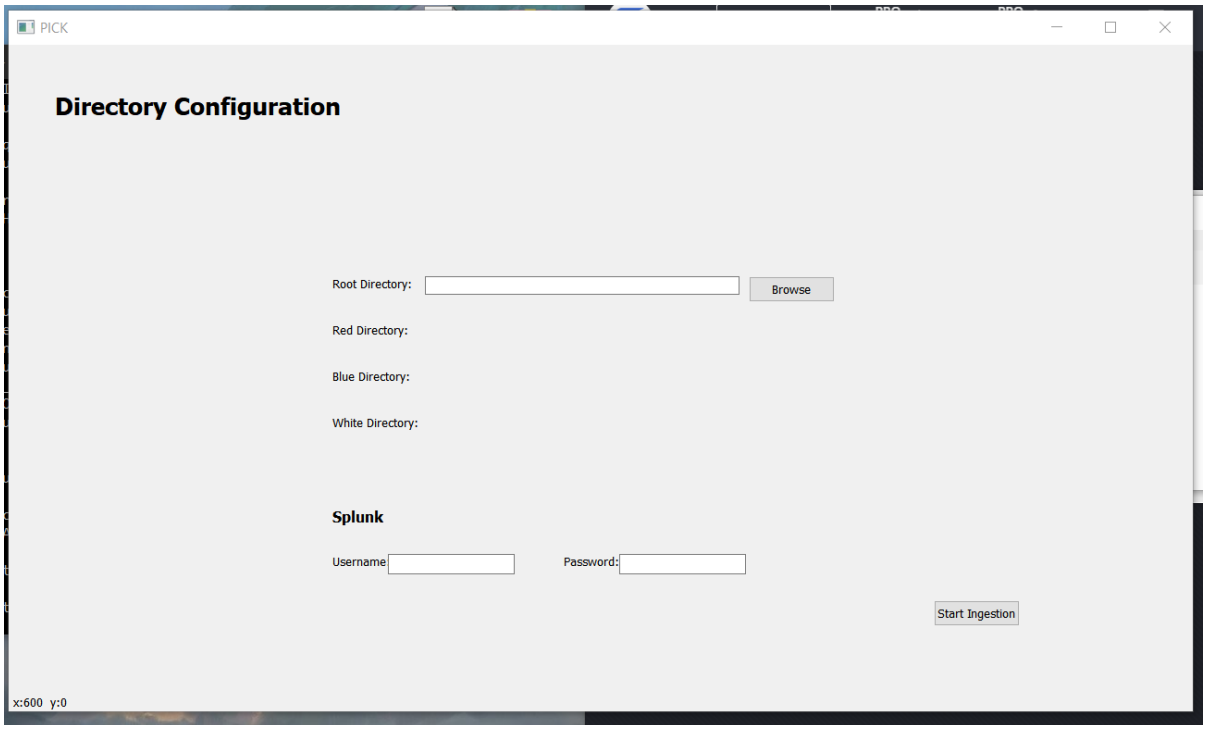
8.2. Figure 2: Event Configuration Page



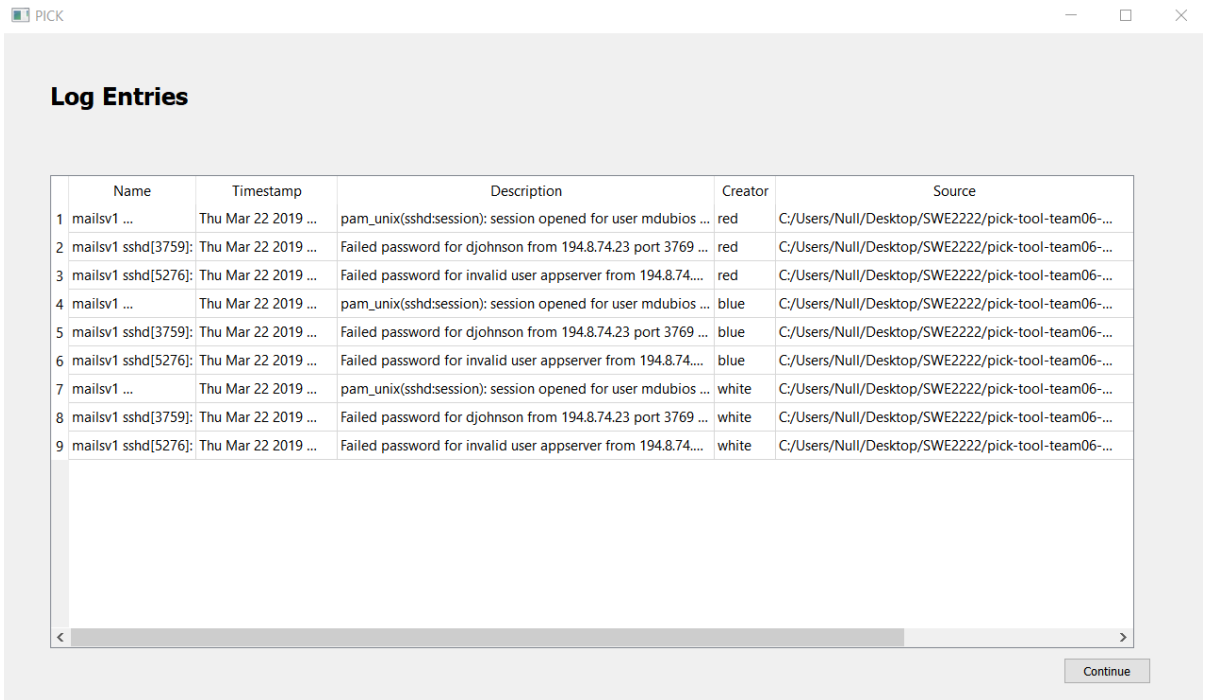
8.3. Figure 3: Calendar



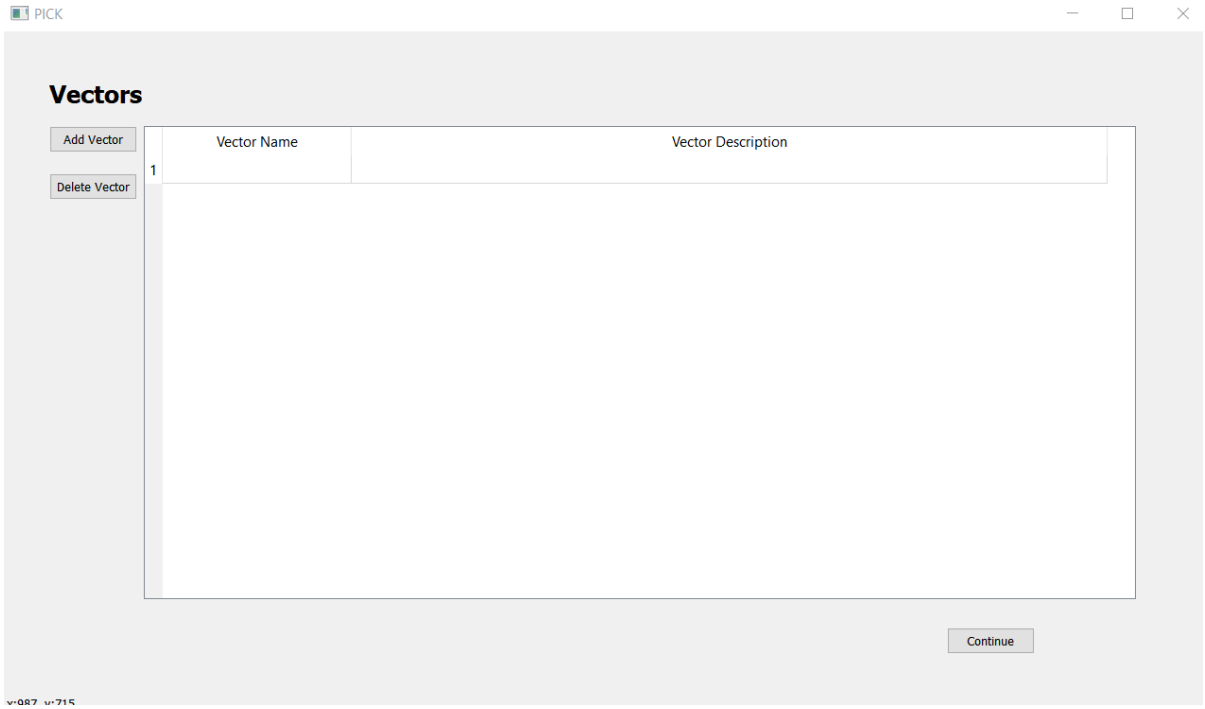
8.4. Figure 4: Directory Configuration Page



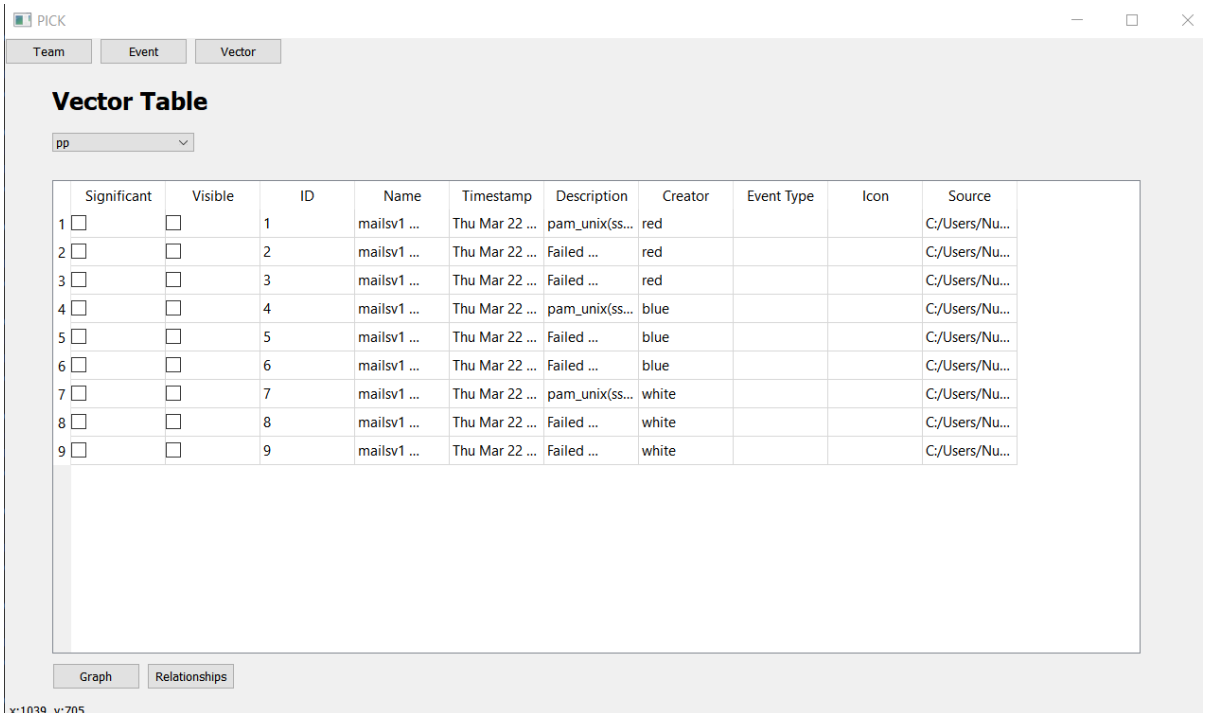
8.5. Figure 5: Log Entry Page



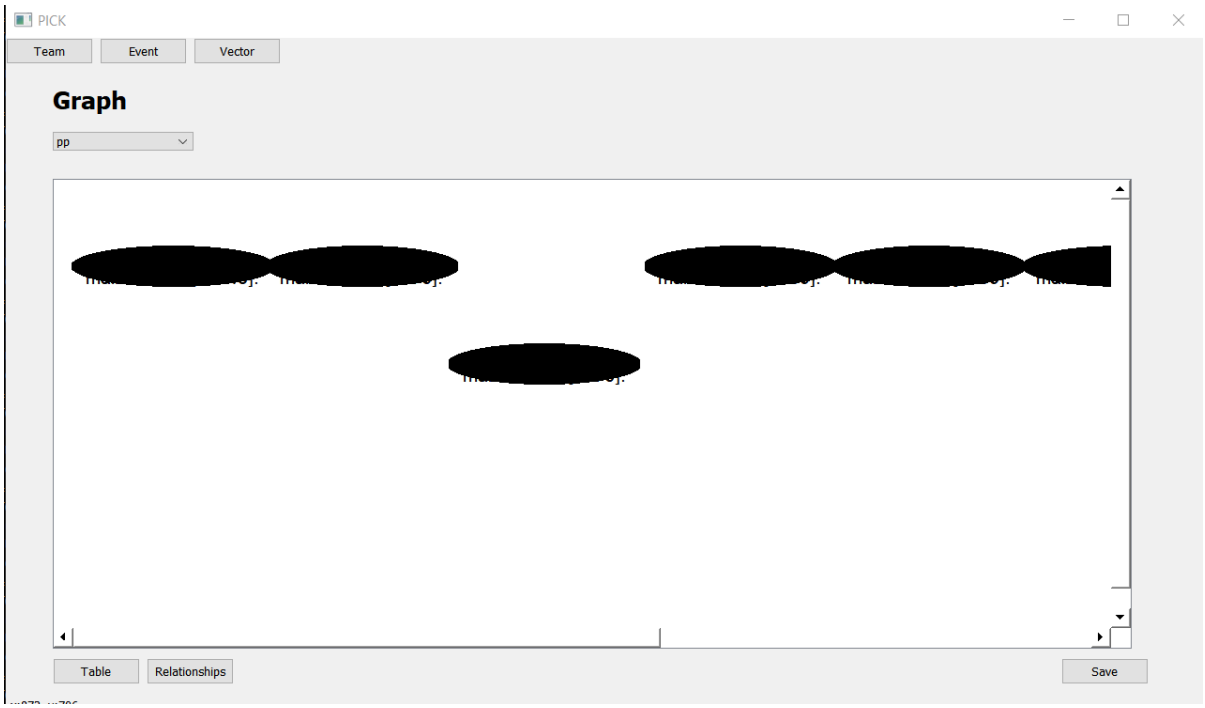
8.6. Figure 6: Vector Page



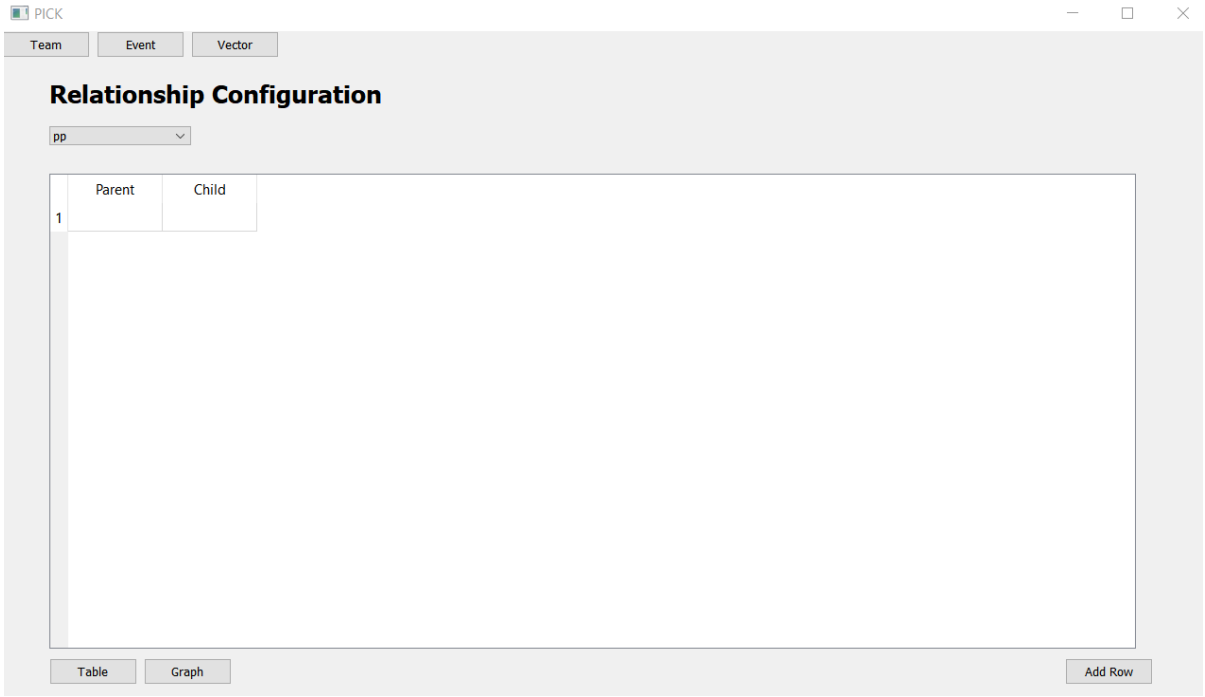
8.7. Figure 7: Vector Table



8.8. Figure 8: Graph View



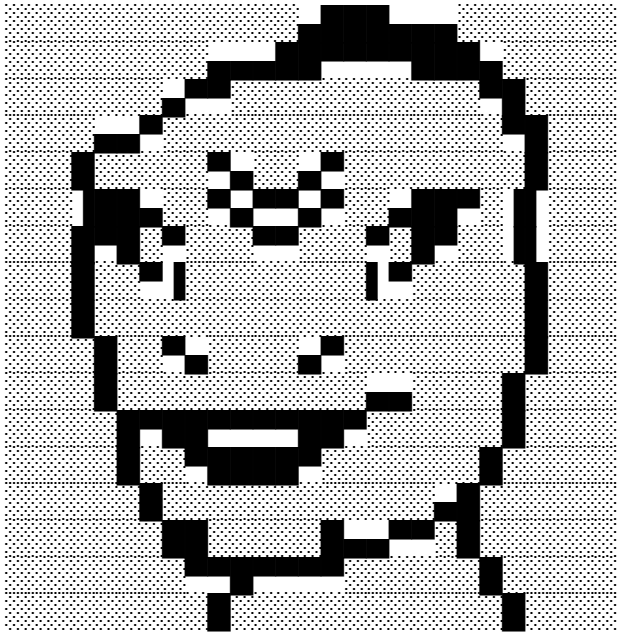
8.9. Figure 9: Relationship Configuration Page



8.10. Text 1

Now, this is a story all about how
My life got flipped-turned upside down
And I'd like to take a minute
Just sit right there
I'll tell you how I became the prince of a town called Bel Air
In west Philadelphia born and raised
On the playground was where I spent most of my days
Chillin' out maxin' relaxin' all cool
And all shootin some b-ball outside of the school
When a couple of guys who were up to no good
Started making trouble in my neighborhood
I got in one little fight and my mom got scared
She said 'You're movin' with your auntie and uncle in Bel Air'
https://www.azlyrics.com/lyrics/djjazzyjeffthefreshprince/freshprinceofbelairthemesong.html

8.11. Text 2



https://www.twitchquotes.com/copypastas/1897

8.12. Text 3

ABC 123!

$