# 1.0 Introduction

## 1.1. Purpose

The purpose of the STD is to describe the methodology that is going to be used to test each function (the execution of procedures and code). It facilitates communication by providing a common frame of reference. This document can serve as a complete checklist for the associated testing process. It can also provide a baseline for the evaluation of current test documentation practices. Increased manageability results from the greatly increased visibility of each phase of the testing process.

## 1.2. Scope

This document will explain the methods used to test each of the procedures and functions necessary to fulfill the requirements described asked by GameStop for Enable Systems in the SRS document. All the procedures and functions are explained in detail in the SDD document.

The functions that will be tested are:

* Log In
* Local Search
* External Search
* Retain
* Secure
* Order

The methods that are going to be used to test each of the functions are:

* Login
* Local Search
* External Search
* Retain
* Secure
* Order

**1.3 Definitions and acronyms**

**1.3.1 Definitions**

|  |  |
| --- | --- |
| Term | Definition |
| Local Search | Search done looking for items in the store. |
| External Search | Search done looking for items not available in the store. |
| User | ES Tester |

**1.3.2 Acronyms**

|  |  |
| --- | --- |
| Term | Acronym |
| ESILGS | Enable Systems Item Lookup for GameStop |
| Software Design Description | SDD |
| Software Requirement Specification | SRS |
| Database Management System. | DBMS |
| GS | GameStop |
| ES | Enable Systems |
| Operating System | OS |

1**.4 References**

* IEE Std 610.12-1990, IEEE Standard Glossary of Software Engineering Terminology.

**2.0 Equipment**

The ESILGS is an application so it works when the user inputs values with the keyboard or scans a barcode. The Equipment or materials necessary for implementing the testing of each function listed below:

* Computer (GS Issued)
* Keyboard
* Monitor
* Server

**3.0 Test Plan**

The test plan is necessary in order to archive a better “life” for the product. This plan will detail which test would be done. All of these tests can be implemented when an update is make or just for regular maintenance.

**System function Test #**

a. Login Test 1

b. Local Search/ Test 2

c. External Search Test 3

e. Retain Test 4

f. Secure Test 5

g. Order Test 6

**4.0 Test Design Specification**

This section of the STD specifies what is the requirement and function to be tested, the method to be used and the conditions the test will be implemented. The conditions can be different ways for implementing a test and/or performance requirements. The requirements and function are in full detail in the SRS and SDD, respectively.

**4.1 Test 1**

**4.1.a Test design specification identifier**

Test if the login function allows the user to access the ESILGS.

**4.1.b Function to be tested**

Login

**4.1.c Method to be used**

Enter Credentials

**4.1.d Conditions for the test**

1. User enters his/her valid credentials (Username / Password).
2. User enters his/her valid Username but not the valid Password.
3. User enters his/her valid Password but not the valid Username.
4. User does not enter valid Credentials (Username and Password).
5. User enters his valid Credentials with Uppercase or Lowercase (Username and

Password)

1. User does not enter any information.

**4.2 Test 2**

**4.2.a Test design specification identifier**

Test if the function local search allows the user to find an item.

**4.2.b Function to be tested**

Local Search

**4.2.c Method to be used**

Enter item information

**4.2.d Conditions for the test**

* 1. User enters wrong item Description
  2. User enters correct Description.
  3. User enters a Category
  4. User Scans a barcode.
  5. User enters correct Price
  6. User enters incorrect Price
  7. User does not enter any information

**4.3 Test 3**

**4.3.a Test design specification identifier**

Test if the function external search allows user to find an item not available in the store.

**4.3.b Function to be tested**

External Search

**4.3.c Method to be used**

Zip Code Input

**4.3.d Conditions for the test**

* 1. User will input correct Zip Code
  2. User wll input incorrect Zip Code
  3. User will not enter a Zip Code

**4.4 Test 4**

**4.4.a Test design specification identifier**

Test if the function Retain can locate a game and receive a confirmation.

**4.4.b Function to be tested**

Retain

**4.4.c Method to be used**

Information Input

**4.4.d Conditions for the test**

1. User enters Email and Name
2. User enter Incorrect Email and Name
3. User enters correct SKU
4. User enters incorrect SKU
5. User presses the button to have a request sent over.
6. User closes the window to cancel order

**4.5 Test 5**

**4.5.a Test design specification identifier**

Test if the Secure function can locate an item, receive a confirmation and save the transaction.

**4.5.b Function to be tested**

Secure

**4.5.c Method to be used**

Information Input

**4.5.d Conditions for the test**

1. User enters Email and Name
2. User enter Incorrect Email and Name
3. User enters correct SKU
4. User enters incorrect SKU
5. User presses the button to have a request sent over from another store.
6. User closes the window to cancel order

**4.6 Test 6**

**4.6.a Test design specification identifier**

Test if the Order function can locate an item that is not available to have it delivered to the store.

**4.6.b Function to be tested**

Order

**4.6.c Method to be used**

Information Input

**4.6.d Conditions for the test**

1. User enters Email and Name
2. User enter Incorrect Email and Name
3. User enters correct SKU
4. User enters incorrect SKU
5. User presses the button to have a request sent over from the warehouse.
6. User closes the window to cancel order

**5.0 Test Description**

This section describes in full detail what data will be used for each condition within the test. We shall also have the expected results and the procedure for running the tests. The expected results are considered by taking conditions in consideration.

**5.1 Test 1**

**5.1.a Test Data**

The test data is the username and password.

**5.1.b Expected Results**

The login will be successful only for the first and fifth condition. Conditions two through four are unsuccessful and the last condition would have the log in prompt expire.

**5.1.c Test Procedure**

1. Press the button to log in.

2. For Test 6, do no enter any information.

3. Enter Username and Password

4. Press Login

5. For Test 2 repeat steps 1 and 2 but with incorrect password.

6. For Test 3 repeat steps 1 and 2 but with incorrect Username.

7. For Test 4 repeat steps 1 and 2 but with incorrect Username and Password.

8. For Test 5 repeat steps 1 and 2 but with Uppercase or Lowercase Username and Password.

**Test 2**

**5.2.a. Test Data**

The data for this test is item information.

**5.2.b. Expected Results**

The results for tests 1, 6 and 7 will yield search results, but not the ones intended. Test 2, 3, 4 and 5 all find the exact item.

**5.2.c Test Procedure**

1. For Test 1, input the wrong item Description.
2. Press Search
3. For Test 2, enter correct description.
4. Repeat Step 2
5. For Test 3, choose a category.
6. Repeat Step 2
7. For Test 4, scan a barcode.
8. Repeat Step 2
9. For Test 5, enter correct price.
10. Repeat Step 2
11. For Test 6, enter incorrect price.
12. Repeat Step 2
13. For Test 7, do no enter any information.

**Test 3**

**5.3.a. Test Data**

The data for this test are the zip codes entered by the user.

**5.3.b. Expected Results**

The results will all display results but only the first one will get the desired results.

**5.3.c Test Procedure**

1. For Test 1, input correct Zip Code.
2. Press search
3. For Test 2, input incorrect Zip Code.
4. Repeat Step 2
5. For Test 3, input no correct Zip Code.
6. Repeat Step 2

**Test 4**

**5.4.a. Test Data**

The data for this test is the customer SKU, Name and Email.DS

**5.4.b. Expected Results**

The results for this test will only be successful for the first condition. Condition two gets a result but it will be for the wrong client. Conditons 3 and 4 are successful, but 4 will get the wrong item. The last two conditions will cancel the order, resulting in failure.

**5.4.c Test Procedure**

1. For Test 1, input the correct Name and Email.
2. Enter SKU (This is also Test 3).
3. Send request.
4. Get confirmation.
5. For Test 2, repeat steps 1-3 but with incorrect Name and Email.
6. For Test 4, repeat steps1-4 but with the incorrect SKU
7. For Test 5, repeat steps 1-3 but without entering any information.
8. For Test 6, close the window.

**Test 5**

**5.5.a. Test Data**

The data for this test will again be the sku, email and name.

**5.5.b. Expected Results**

For this test, the first two conditions will get results back, but condition 2 leads towards an erroneous hold.

**5.5.c Test Procedure**

1. For Test 1, input the correct Name and Email.
2. Enter SKU (This is also Test 3).
3. Send request.
4. Get confirmation.
5. For Test 2, repeat steps 1-3 but with incorrect Name and Email.
6. For Test 4, repeat steps1-4 but with the incorrect SKU
7. For Test 5, repeat steps 1-3 but without entering any information.
8. For Test 6, close the window.

**Test 6**

**5.6.a. Test Data**

The data for this test are the Name , Email and SKU courses from the schedule:

**5.6.b. Expected Results**

The tests will be the same as secure except that the item will be shipped to the store.

**5.6.c Test Procedure**

1. For Test 1, input the correct Name and Email.
2. Enter SKU (This is also Test 3).
3. Send request.
4. Get confirmation.
5. For Test 2, repeat steps 1-3 but with incorrect Name and Email.
6. For Test 4, repeat steps1-4 but with the incorrect SKU
7. For Test 5, repeat steps 1-3 but without entering any information.
8. For Test 6, close the window.

**6.0 Performance Test**

This section will describe the tests that are going to be made for the complete system. This test will be done after each of the tests described on sections 4 and 5. Some conditions that have already been described are similar to the following tests, but this is necessary to the simple nature of the tests.

**6.1 Stress**

* 1. To test the live updates, merchandise will be received constantly for 10 minutes every hour.
  2. For testing the maximum capacity of the servers, every store will be required to do a search at five past every hour.

**6.2 Load**

* 1. 1000 users will process orders.

**6.3 Endurance**

* + At least two ESILGS must be open per stores and run the same search over and over.

**6.4 Spike**

* 1. Every store will process incoming merchandise while simultaneously running multiple searches during the same 10 minute period. Followed by double the processes after two minutes.
  2. **Scalability**
  3. 30 users will retain, secure and order 5 consecutive times followed by repeating the process constantly for 1 hour.

**6.6 Isolation**

* 1. Remove 1 GB of RAM from the PCs being tested.
  2. Do the same for the servers.
  3. Have 1000 employees run external searches.