T.C. YEDİTEPE ÜNİVERSİTESİ

SOFTWARE TEST DOCUMENT FOR IMAGE SECURITY PROGRAM

Approved by	Description
Semih BILGEN Yusuf Can SEMERCI	Software test document for Image Security Program (3DES)
Project Group	

DOLPHINS Deniz Tuana ERGONUL Emre Osman OZUM Hakan YILMAZ Orcun Soner EREN Tugba USTA	**Date**	29/04/2016
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Revision History

Date	Version	Description	Prepared by
29/04/2016	1.0	First release	Deniz Tuana ERGONUL Emre Osman OZUM Hakan YILMAZ Orcun Soner EREN Tugba USTA

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1. Scope

This document includes the tests have been done to complete the validation step which checks if the product built is right. In other words, if the requirements specified by the stakeholders are met.

This document is based on the Software Requirements Specification for Image Encryption/Decryption Program. (Version 2.0)

All the tests are designed with "black-box" approach. At the end of all tests there is an observability matrix, that shows if all the requirements items are conformed by these test.

Implementation Group: Dolphins

Project: Image Security Program with 3DES

2. References

Reference Name	Version	Date
Software Requirements Specification for Image Encryption/Decryption Program	2.0	22.03.2016

3. Preparations Before Tests

3.1. Hardware and Software Preparations

Minimum hardware and software requirements to run this program are listed in this part.

3.1.1. Hardware Preparations

1. The program can run on any average computer system.

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3.1.1. Software Preparations

Following software should be installed on the computer described on "3.1.1. Hardware Preparations":

1. The program can run on any Windows OS.

4. Test Definitions

Test Group	Description	Test No
1	GUI Tests	ISP_STD1.xx

Each test group will be divided into sub-tests. Test will be performed will be these tests.

For each test the following information will be given:

Test No. : A number in the format which is described on "Table.2"
Corresponding Requirements : The requirements in the SRS document that will be validated by this test.
Test Procedure : A description that explains how the test will be performed.
Success criteria : Expected results of the tests to conclude that the requirements are validated.
Assumptions and Limitations: Any assumptions and/or limitations for the test are shown.
Test Status: The status of the test is shown. If the test has been applied to the software, the result will be given in this field as "Succeeded" or "Failed".

4.1. GUI Tests

GUI tests are divided into four sub-tests: Load Image Test, Enter Key Test, Encrypt Test, Decrypt Test

4.1.1. ISP_STD1.01 Load Image Test
Corresponding Requirements: SRS-System-001, SRS-System-002

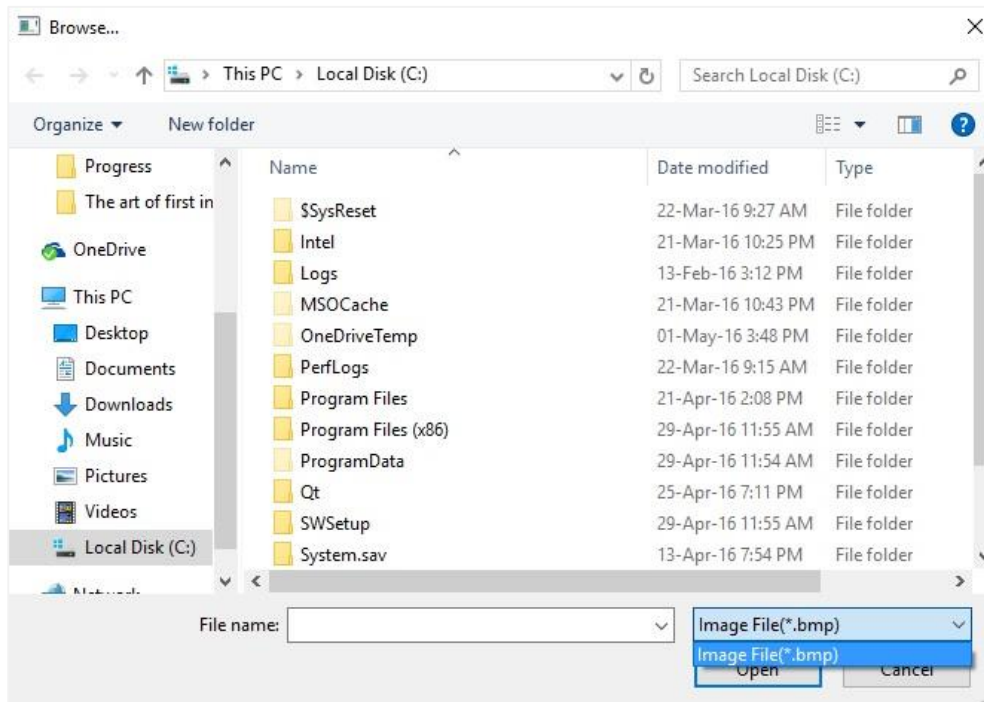**Purpose of The Test**: To verify that load image process works properly.

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Test Procedure:

1. Install the program on any computer system according to "3. Preparations Before Tests".
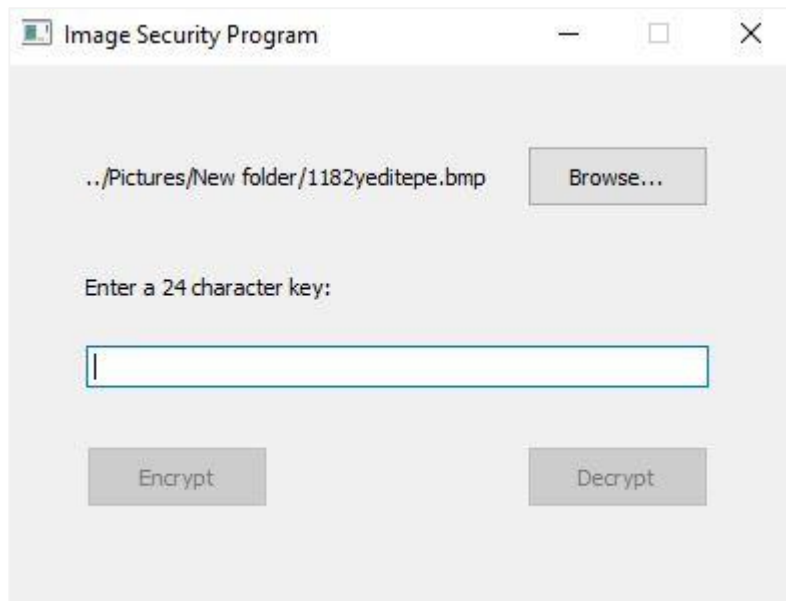2. Click "Browse...".
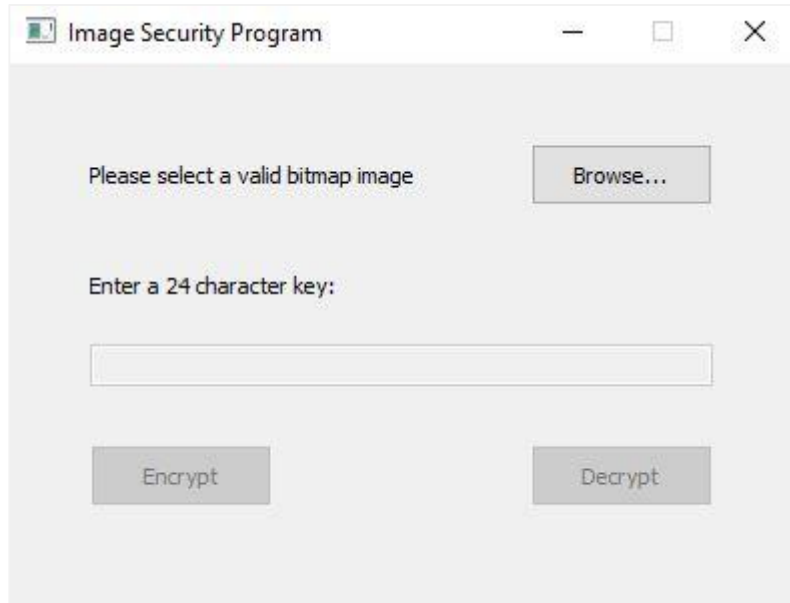
3. Verify that the program only accepts a bitmap image.

4. Verify that after an image is chosen, key area becomes available for the user.

Success Criteria:

1. The program should be installed without any problem.
2. Only a bitmap image should be accepted by the program.
3. After an image is chosen, key area should become available for the user.

Assumptions and Limitation: None

Test Status: Succeeded.

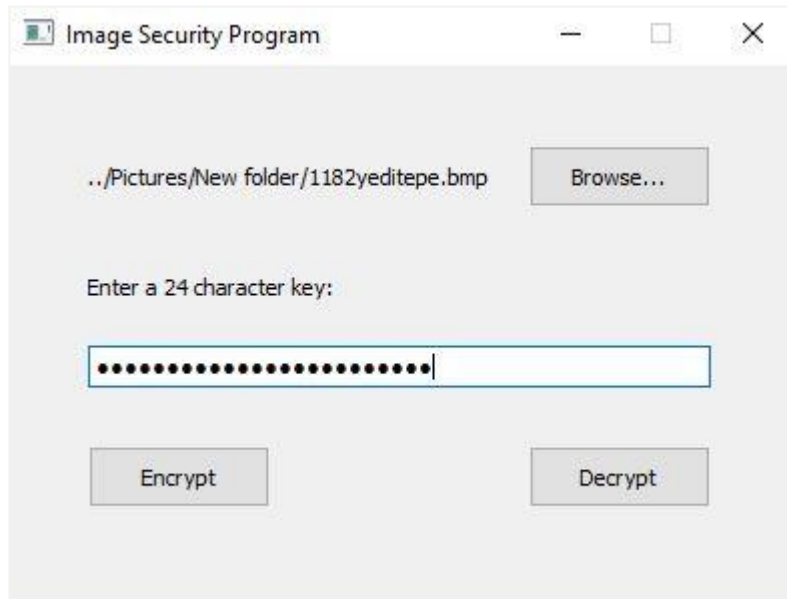**4.1.2.** ISP_STD1.02 Enter Key Test

Corresponding Requirements: SRS-System-003, SRS-System-004

Purpose of The Test: To verify that enter key process works properly.

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Test Procedure:

1. After choosing an image, enter a 24 character key.
2. Verify that Encrypt, Decrypt buttons become available for the user after a 24 character key is entered.

Success Criteria:

1. Encrypt, Decrypt buttons should become available for the user after a 24 character key is entered.

Assumptions and Limitations: A bitmap image is chosen.

Test Status: Succeeded

4.1.3. ISP_STD1.03 Encrypt Test

Corresponding Requirements: SRS-System-005

Purpose of The Test: To verify that encrypt process works properly.

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Test Procedure:

1. After a 24 character key is entered, verify that when Encrypt button is clicked, the image is encrypted with the key, using Triple DES Algorithm, the encrypted image is still in bitmap format, it is deformed and it cannot be opened. (An information message should be shown to the user saying that the encryption was successful.)
2. Verify that the path of the encrypted image is shown to the user.

Success Criteria:

1. An information message should be shown to the user saying that the encryption was successful.
2. The path of the encrypted image should be shown to the user.

Assumptions and Limitations: A bitmap image is chosen, a 24 character key is entered.

Test Status: Succeeded

4.1.4. ISP_STD1.04 Decrypt Test

Corresponding Requirements: SRS-System-006, SRS-System-007

Purpose of The Test: To verify that decrypt process works properly.

Test Procedure:

1. After a 24 character key is entered, verify that when Decrypt button is clicked, the image is decrypted with the key, using Triple DES Algorithm. If the key entered is the right key, a preview of the decrypted image(original image) should be shown to the user. Otherwise, an error message should be shown to the user saying that the key entered is invalid and the user has to enter a new key.
2. Verify that the path of the decrypted image is shown to the user.

Success Criteria:

1. If the key entered is the right key, a preview of the decrypted image should be shown to the user.
2. If the key entered is the wrong key, an error message should be shown to the user saying that the key entered is invalid and the user has to enter a new key.
3. The path of the decrypted image should be shown to the user.

Assumptions and Limitations: A bitmap image is chosen, a 24 character key is entered.

Test Status: Succeeded

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4.   Requirements Observability

The observability matrix given shows which test is related with which requirement from the SRS document.

STD Test No.	SRS Requirement ID
ISP_STD1.01	SRS-System-001, SRS-System-002
ISP_STD1.02	SRS-System-003, SRS-System-004
ISP_STD1.03	SRS-System-005
ISP_STD1.04	SRS-System-006, SRS-System-007