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| **1. UAT Scope (In Scope – Out of Scope)** | |
| **UAT - In Scope** | **UAT - Out of Scope** |
| In Scope *List features that are tested*   * Opening PPM image * Zooming In & Out * Applying Gaussian Filter with and without Padding * Saving PPM image * Applying Otsu Algorithm * Saving PBM image | Out of Scope *List features that are not tested.*   * Applying other filters * Applying Spectral Filter * Applying Noise * Opening PBM image * Opening PGM image * View Histogram * View Histogram Curve * View image Spectrum |

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| **2. UAT Assumptions and Constraints** |
| **UAT Assumptions** |
| Assumption *List the UAT assumptions.*   * **Test environment:** The test cases are conducted by 2 amateur QA testers, meeting rooms are blocked, and hard- and software is provided by IT * **Test documentation:** All UAT test cases are documented within the project’s Github link * **Error reporting:** Errors, failures and other flaws are reported using the Usersnap Chrome extension and are directly sent to the particular project |

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| **UAT Constraints** |
| Constraint *List the UAT constraints.*   * **Time frames**: Test results must be provided by June 6th 2022 * **Resources:**   + Human resources: 2 testers available for 2 days   + Provided hardware: Macbook Air, iMac, Mac Mini, Chromebook, Surface Pro, HP Spectre,   + Tested operating systems:     - Linux: Fedora, Arch Linux, Ubuntu   + Tested Desktop Environments:     - KDE     - GNOME     - XFCE |

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| **3. UAT Risks** | | | |
| **Description** | **Probability**  **High|Med|Low** | **Impact**  **High|Med|Low** | **Mitigation** |
| not properly trained Testers | Low | Low | Ongoing training sessions for testers |
| Incomplete test environment due to time constraints | Low | Low | Realistic time and resource planning |
| Error handling: Testers are not aware on how to report bugs | Low | High | Easy-to-use bug reporting solution for UAT test available |
| UAT test failure | Low | High | Feature-complete development done before UAT test start |

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| **4. UAT Team Roles & Responsibilities** | | |
| **Name** | **Roles** | **Responsibilities** |
| Rami Zouari | Tester | Testing on Fedora |
| Saief Eddine Zneti | Tester | Testing on Arch Linux |
| Saief Eddine Zneti | Tester | Testing on Ubuntu |
| Saief Eddine Zneti | QA Manager | Managing UAT Test |
| Rami Zouari | Product Owner | Project ownership |

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| 5. UAT Entry Criteria | |
| **ID** | **Criteria** |
| 5.1 | The development of the archive feature is fully completed |
| 5.2 | Integration tests are completed |
| 5.3 | No high or medium defects are reported |
| 5.4 | All reported bugs should be fixed |
| 5.5 | UAT test environment (hardware, software, location) is ready |
| 5.6 | Testers got briefed and ready to start testing |
| 5.7 | UAT test plan is available |

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| 6. UAT Requirements-Based Test Cases | |
| **ID** | **Test Cases** |
| 6.1 | *Opening Image:*   * *Open the IPAT application* * *Click on the “file” Menu Bar*   + *Click on “open”*   + *Click on the folder “img”*   + *Click on the folder “P6”*   + *Select the image “marbles.ppm”.* * *Click on open* * *Expected result:*   + *An image containing marbles is shown on the application* |
| 6.2 | *Zooming (requires Opening Image)*   * *Open the marbles.ppm image as described in Test Case 6.1* * *Click on “Ctrl+Plus” 3 times with delay* * *Click on “Ctrl+Minus” 3 times with delay* * *Expected result:*   + *The image will be zoomed in 5 times after step 2*   + *The image will be zoomed out 5 times after finishing the test*   + *The final size of the image is approximately that of the image before the zooming operations*   + *The quality of the image won’t be degraded* |
| 6.3 | *Gaussian Filter With Padding (requires Opening Image)*   * *Open the marbles.ppm image as described in Test Case 6.1* * *Click on “edit” on the Menu Bar* * *Click on “filter” on the “edit” menu* * *Click on Gaussian Blur Filter* * *Set the value of “Standard Deviation X” to 8* * *Set the value of “Standard Deviation Y” to 8* * *Set the value of “Standard Deviation Count” to 20* * *Expected result:*   + *An apparent blur occurred to the image* |
| 6.4 | *Gaussian Filter Without Padding (requires Opening Image)*   * *Open the marbles.ppm image as described in Test Case 6.1* * *Click on “edit” on the Menu Bar* * *Click on “filter” on the “edit” menu* * *Click on Gaussian Blur Filter* * *Set the value of “Standard Deviation X” to 8* * *Set the value of “Standard Deviation Y” to 8* * *Set the value of “Standard Deviation Count” to 20* * *Select the value “No Padding” on the “Padding” input* * *Expected result:*   + *An apparent blur occurred to the image*   + *A decrease on the image size* |
| 6.5 | *Applying Gray Filter (requires Opening Image)*   * *Open the IPAT application* * *Click on the “file” Menu Bar*   + *Click on “open”*   + *Click on the folder “img”*   + *Click on the folder “P6”*   + *Select the image “lena.ppm”.* * *Click on open* * *Click on “edit” on the Menu Bar* * *Click on “gray”* * *Select “Rec.709”* * *Click on “Ok”* * *Expected result:*   + *Lena image will be transformed to gray scale* |
| 6.6 | *Applying Otsu’s Algorithm (requires Gray Scale)*   * *Apply the gray filter as described in Test case 6.5* * *Click on “edit” on the Menu Bar* * *Click on “Otsu”$* * *Set the “Number of Clusters” to 2* * *Check “Output Binary Image”* * *Expected result:*   + *The Lena image will be purely in black and white, Lena will be still visible* |
| 6.7 | *Save PBM image (requires Otsu’s Algorithm)*   * *Apply Otsu’s algorithm as described in Test case 6.6* * *Click on “file” on the menu bar* * *Click on “Save as”* * *Select a path and file name of your choice* * *Expected result:*   + *The binary version of Lena’s image will be created on the described path* |
| 6.8 | *Save PPM image (requires Opening image)*   * *Open the marbles.ppm image as described in Test Case 6.1* * *Click on “file” on the menu bar* * *Click on “Save as”* * *Select a path and file name of your choice* * *Expected result:*   + *An identical copy of marbles.ppm will be created on the described path* |

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| 7. UAT Test Results | | |  |  |
| **ID** | **Test Cases** | **Pass/Fail** | **Tested By** | **Date Tested** |
| 7.1 | *Opening Image* | Pass | - Rami Zouari  - Saief Eddine Zneti | 07/05/2022 |
| 7.2 | Zooming | Pass | Rami Zouari | 11/05/2022 |
| 7.3 | Gaussian Filter With Padding | Pass | Rami Zouari | 13/05/2022 |
| 7.4 | Gaussian Filter Without Padding | Fail | Saief Eddine Zneti | 27/05/2022 |
| 7.5 | Applying Gray Filter | Pass | Saief Eddine Zneti | 28/05/2022 |
| 7.6 | Applying Otsu’s Algorithm | Pass | Rami Zouari | 31/05/2022 |
| 7.7 | Save PBM image | Fail | Rami Zouari | 02/06/2022 |
| 7.8 | Save PPM image | Pass | Saief Eddine Zneti | 01/06/2022 |

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| 8. Document Signatures | | | |
| **Role** | **Name** | **Signature** | **Date** |
| Project Manager & Product Owner | Rami Zouari |  | 06/03/2018 |
| Project Manager | Saief Eddine Zneti |  | 06/06/2022 |

# 9. Addendums & Appendices

*Include any additional documents.*