Test Plan

For the

Observatory Scheduler

by

Jaime Acevedo

Matthew Bunch

Ryan Sharp

Of

Team Observatory Project

Revision 1.0.0

As of: January 26, 2015

**Change Log:**

|  |  |
| --- | --- |
| **Revision** | **Change Note(s)** |
| 1.0 | * Initial release |

**Reviewed and Approved By:**

Name Signature Date

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# Introduction

## Purpose of Test Plan Document

The purpose of the test plan is assure all requirements are satisfied along with testing the functionality of each module individually and systematically. The test plan will be a guideline to follow to assess the progress of the final product. Various test will

# Compatibility Testing

## Test Risks / Issues

[Describe the risks associated with product testing or provide a reference to a document location where it is stored. Also outline appropriate mitigation strategies and contingency plans.]

## Items to be Tested / Not Tested

[Describe the items/features/functions to be tested that are within the scope of this test plan. Include a description of how they will be tested, when, by whom, and to what quality standards. Also include a description of those items agreed not to be tested.]

|  |  |  |  |
| --- | --- | --- | --- |
| **Item to Test** | **Test Description** | **Test Date** | **Responsibility** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Test Approach(s)

[Describe the overall testing approach to be used to test the project’s product. Provide an outline of any planned tests.]

## Test Regulatory / Mandate Criteria

*[Describe any regulations or mandates that the system must be tested against.]*

## Test Pass / Fail Criteria

[Describe the criteria used to determine if a test item has passed or failed its test.]

## Test Entry / Exit Criteria

[Describe the entry and exit criteria used to start testing and determine when to stop testing.]

## Test Deliverables

[Describe the deliverables that will result from the testing process (documents, reports, charts, etc.).]

## Test Suspension / Resumption Criteria

[Describe the suspension criteria that may be used to suspend all or portions of testing. Also describe the resumption criteria that may be used to resume testing.]

## Test Environmental / Staffing / Training Needs

[Describe any specific requirements needed for the testing to be performed (hardware/software, staffing, skills training, etc).)]

# System Testing

## Test Risks / Issues

System testing would not pose a risk or issue, due to the environment set-up. Testing of the entire system will take place in our client’s server located in his office. The target server, which hosts the telescope software will be located off-site and our application will not have any direct impact/communication to the telescope or its supporting application. System testing will involve integrating various modules to produce an output file that will be manually uploaded to the telescope, by the client himself.

## Items to be Tested / Not Tested

|  |  |  |  |
| --- | --- | --- | --- |
| **Item to Test** | **Test Description** | **Test Date** | **Responsibility** |
| Database Verification | Test to see if database is being written and read into properly. | 3/15 | Team |
| XML file Creation | Test to see if XML is created properly for telescope uploading. | 3/15 | Team |
| E-mail Verification | Test to see if E-mail is notifying users on an appropriate time. | 3/20 | Team |
| View Pictures | Test to see if Pictures are viewable to users when telescope has completed the reservation. | 3/20 | Team |

## Test Approach(s)

The overall approach the team will take to test these items will be to execute input data directly into the application and verify the expected results. For example, when a user is filling out the reservation form and hits the submit button. A team member will view the reservation table to see if the database has been properly written to and also view the XML file that is generated shortly after the reservation is complete. Overall, the approach will be more walk-through oriented to get a good feel on how the users will use the application and to see if any errors are encountered along the way.

## Test Pass / Fail Criteria

The criteria that will be used to determine if an item has passed or fail a test will be to input specific data and expect to see output specified data. After observing the results, the team will make the best judgment of the outputted data to determine if the item has passed or failed. Finally, we will also be analyzing the workflow of the System as a one unit to see if is communicating efficiently and preforming the required functional duties.

## Test Entry / Exit Criteria

Testing will begin with simple scenarios. For example, a simple scenario will be a user just simply requesting a time slot for a reservation for the telescope. The user will input the coordinates and specified date and time information via the web interface. As simple scenarios become successful the team will begin to test more complex situations. In the case where a time-slot needs to be overwritten the admin will have the authorization to do so and it will be tested.

## Test Deliverables

As testing begins, documentation and documents will be updated accordingly. Project Plan, Burn down charts, Velocity Charts, Back Log, Sprint Sheets are all documents that need to update to assure our progression is on task to meet the required due date. More importantly, this document itself, if needed, will be revised and updated if any changes will need to be made to the way testing is conducted.

## Test Suspension / Resumption Criteria

In the case, that a major requirement change will be in effect. The test plan will need to accommodate and changes made that will suspend testing. No major changes are expected but it is best to plan for every scenario. The test plan will be updated as necessary, along with dates if any changes are made.

# Unit Testing

## Test Risks / Issues

There will be no risks with unit testing. All unit testing will be done in a development environment and not on the client’s server. This will allow flexibility to assure all unit test are done properly and meet the required specification before pushed out into system testing. No mitigations will be necessary because there will not be any unit testing in the production environment. Necessary backups of development data will be taken when necessary to assure that there is recovery points to go back to if necessary.

## Items to be Tested / Not Tested

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| --- | --- | --- | --- |
| **Item to Test** | **Test Description** | **Test Date** | **Responsibility** |
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## Test Suspension / Resumption Criteria

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## Test Environmental / Staffing / Training Needs

[Describe any specific requirements needed for the testing to be performed (hardware/software, staffing, skills training, etc).)]

# Performance Testing

## Test Risks / Issues

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## Items to be Tested / Not Tested

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[Describe any specific requirements needed for the testing to be performed (hardware/software, staffing, skills training, etc).)]

# Acceptance Testing

## Test Risks / Issues

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## Test Environmental / Staffing / Training Needs

[Describe any specific requirements needed for the testing to be performed (hardware/software, staffing, skills training, etc).)]

# Test Plan Approval

The undersigned acknowledge they have reviewed the *<Project Name>* **Test Plan** document and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

[List the individuals whose signatures are required. Examples of such individuals are Business Steward, Technical Steward, and Project Manager. Add additional signature lines as necessary.]

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| --- | --- | --- | --- |
| Signature: |  | Date: |  |
| Print Name: |  |  |  |
| Title: |  |  |  |
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| Role: |  |  |  |

Appendix A: References

[Insert the name, version number, description, and physical location of any documents referenced in this document. Add rows to the table as necessary.]

The following table summarizes the documents referenced in this document.

|  |  |  |
| --- | --- | --- |
| **Document Name and Version** | **Description** | **Location** |
| *<Document Name and Version Number>* | *[Provide description of the document]* | *<URL or Network path where document is located>* |

Appendix B: Key Terms

*[Insert terms and definitions used in this document. Add rows to the table as necessary. Follow the link below to for definitions of project management terms and acronyms used in this and other documents.*

*http://www2.cdc.gov/cdcup/library/other/help.htm*

The following table provides definitions for terms relevant to this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |