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Team ID	PNT2022MID30395
Project Name	IoT Based Smart Crop Protection System for Agriculture

## UAT Initiation and Design

The purpose of this document is to outline the User Acceptance Testing (UAT) process for the [Project Name]. Project Sponsors from all participating departments are intended to review this document. Approval of this document implies that reviewers are confident that following the execution of the test plan, the resulting system will be considered fully-tested and eligible for implementation.

UAT is to be completed by the Business Departments (UAT Team) that will be utilizing the software and/or support departments. The testing is conducted to enable a user to validate that the software meets the agreed upon acceptance criteria.

### **1.1 Project Overview**

[Describe the project here]

### **1.2 Scope**

#### **1.2.1 In Scope**

[List testing of functional and use case requirements, non-automated business processes, user interface, etc. here]

#### **1.2.2 Out of Scope**

[List system integration, disaster recovery, business continuity and other exclusions here]

### **1.3 Objective**

#### **1.3.1 Primary Objective**

User Acceptance Testing is conducted to ensure that the system satisfies the needs of the business as specified in the functional requirements and provides confidence in its use. Modifications to the aforementioned requirements will be captured and tested to the highest level of quality allowed within the project timeline.

### **1.3.2 Secondary Objective**

To identify and expose defects and associated risks, communicate all known issues to the project team, and ensure that all issues are addressed in an appropriate manner prior to implementation.

## **2.0 UA Test Methodology**

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[Explain the method of testing, describe test phases, and applications to be tested]

User Acceptance Testing will be conducted primarily by the end users (i.e. Subject Matter Experts). Users will execute all [Project Name] test scripts referenced in section [6.1](#). Users may also perform additional tests not detailed in the plan but remain relevant and within the scope of the project. UAT progress will be reported based on the percentage executed test cases and other relevant testing activities.

Users will report issues and defects to the business analysts for documentation and escalation. These incidents will be described, prioritized, and tracked by using screen captures, verbiage, and steps necessary for DEVELOPMENT to reproduce the defect. Information on defect prioritization can be found in section [7.2](#).

### **2.1 Test Phases**

[Outline and describe the test phases and UAT involvement in each cycle.]

## **3.0 UA Test Environment**

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[Detail the environments used for testing. List application configuration, test locations, URLs, etc.]

Applicable IP addresses and URLs should be provided to the UAT Team and all workstations should be configured appropriately for access to the test environment.

### **3.1 UA Test Desktops**

Each test participant will be provided with a checklist to verify access to all applications within the defined scope of testing. The tester will then log in and validate the sign-on data generates the expected results for each application. This includes, but is not limited to, correct menus, permissions, and general access. Any applications identified as missing from the test workstation desktops should be formally requested and installed prior to testing.

### **3.2 UA Test Data**

[List the required data that must be received before testing begins - i.e. access to systems, accounts, etc.]

Access to test data is a vital component in conducting a comprehensive test of the system. All UAT participants will require usage of test accounts and other pertinent test data which should be provided by end user support upon request. Participants not currently utilizing test data must receive appropriate clearance and/or permissions to perform desired actions in the UAT environment. All user roles should fully emulate production in the UAT path. Completion of an online access request may be required in order to create test accounts.

## **4.0 Roles and Responsibilities**

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[Note team members specifically Business Analyst(s) and SME(s) performing UAT. Testing participants should include representatives from all areas involved in the system]

Keys to a successful UAT process involve open channels of communication, detailed documentation, and above all, clearly defined roles and responsibilities. Each team member must function fluidly in a group setting as well as work independently for extended periods of time. UAT is largely a collaborative process and test results must be analyzed from different perspectives and by team members with various levels of expertise across the business to ensure success.

### **4.1 UAT Team**

The test team is comprised of members who possess a thorough knowledge of the current systems and processing methods, i.e. SMEs. These team members will be better able to initiate test input, review the results, and be more intuitively familiar with the impact on other related business issues and staff activities. Members should be detail-oriented and be diligent in collecting proper documentation to support the test results. Team members are selected based, in part, on the ability of management to reassign the daily duties they will have to forgo while performing the testing.

All team members will be presented with an overview of the test process and what their specific role in UAT will be. The Business Analyst's role in the UAT process is to oversee testing by assigning scripts to SMEs, providing general support, and serving as the primary UAT contact point throughout the test cycle. The BA will be expected to filter out any duplicate defects found and escalate high priority issues to the team in a time sensitive manner.

## **5.0 UAT Deliverables**

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The following sections detail milestones crucial to the completion of the UAT phase of the project. Once all dependent milestones have been completed, UAT will formally sign-off on the system's functionality and distribute an e-mail to all project stakeholders.

### **5.1 UAT Activities**

All core UAT activities are defined below:

*Identify UAT Team* – Business Analyst lists SMEs that will take part in testing for the project. The Project Sponsor is often the source of information for the team list. A full description of team member attributes is detailed in section [4.1](#).

*UAT Plan* – A strategy-based document defining test methodology and criteria is distributed to the team.

*UAT Plan Team Review* – Session with business stakeholders to review plan and provide feedback and sign-off.

*UA Test Cases* – A document that details each specific test case that will be performed during the UAT process.

*Test Data Acquisition* – Receipt of accounts and test environment data from QA required to execute test scripts. *Note: one full week of lead time is needed to acquire test accounts from QA.*

*UA Test Cases* – A detailed step-by-step breakdown of each individual test case.

*UA Test Case Review* – Approval from business team and/or third parties on completed scripts.

*Desktop Validation* – Validation of installed applications and configuration necessary for testing.

*UAT Environment Validation* – Validation of connectivity and expected results in the test environment for each end user participating in testing.

*Test Case Execution* – Completion of all test scripts by test team.

*Defect Tracking* – Defects will be entered and tracked via spreadsheet by the Business Analyst and/or Project Manager. Each entry will include detailed information about each defect.

*UAT Touch Point* – Regularly scheduled meeting to evaluate UAT progress and outstanding defects.

*UAT Sign-Off* – Formal sign-off indicating the system satisfies the needs of the business as specified in the functional requirements and provides confidence in its use.

## 6.0 UA Test Cases

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[Describe test case approach and provide link to full document]

Test cases provide a high-level description of the functionality to be tested. All regression and new functionality test cases are contained in the Excel spreadsheet “UA Test Cases” available at: [insert hyperlink to UAT folder in Project Directory here]. The team plans to leverage relevant QA test cases for project specific functionality. Each test case based on new functionality will reference a specific functional requirement.

### 6.1 UA Test Cases

Test cases contain a detailed step by step breakdown of each test case to be performed by the UA tester. Each script contains: test case number, product, test description, requirement number, requestor, tester, action to be performed, test data to be utilized,

expected results, error descriptions (if applicable), pass/fail results, date tested, and any additional comments from the UA tester.

The UA test scripts are contained within the UAT test case spreadsheet and can be accessed via hyperlink from each individual test case.

## **7.0 UAT Defects**

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[Describe the defect capture and prioritization methods]

Defects will be entered and tracked via spreadsheet by the Business Analyst during the UAT process. Each entry will include detailed information about each defect.

### **7.1 UAT Defect Tracking**

Team members will be provided with instruction on how to effectively execute test scripts, as well identify, capture, and report defects. Utilization of Microsoft Office applications and screen capture programs (e.g. SnagIt) will be required to document defects for escalation. Team members will be expected to present findings on regularly scheduled touch point meetings in the event that end user support and/or Development require additional detail.

### **7.2 UAT Defect Prioritization**

The Business Analyst will function as a liaison between the business and development on matters of prioritizing and classifying defects. Defects found in UAT can be assigned one of four (4) levels of severity:

*Regulatory* – This request is regulatory and mandatory

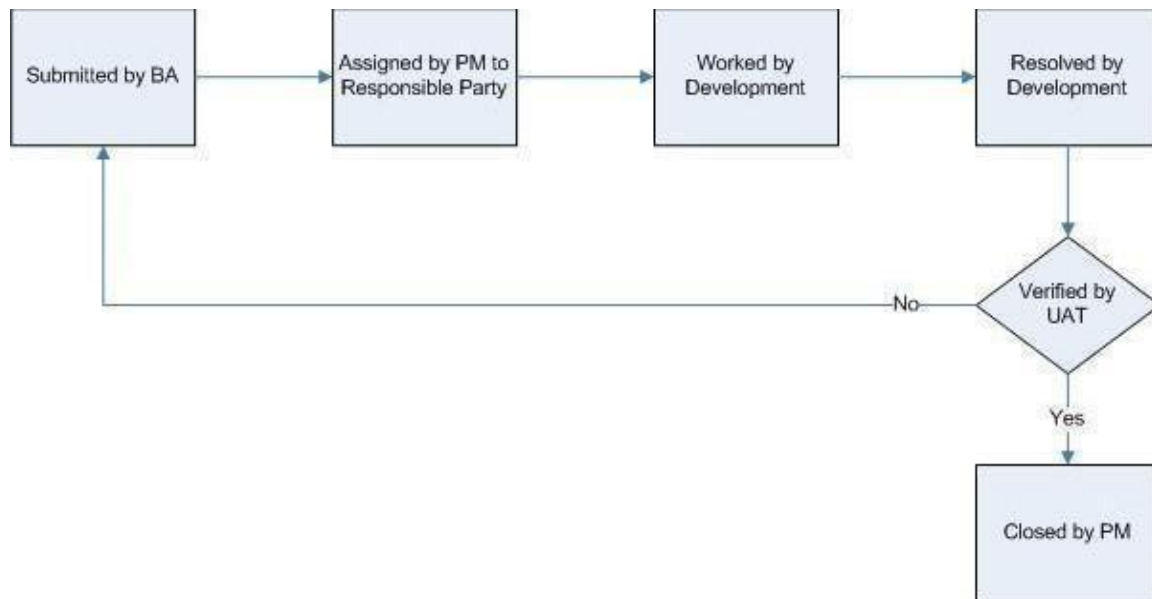
*Critical* – Testing defects that due to the complexity of the function or the scheduled dates are putting the implementation date at risk. No workaround exists.

*High* – Testing defects occurring in a less complex function of the application with sufficient time to resolve before the implementation date – but must be implemented as scheduled. A workaround has been identified and is listed in the defect.

*Low* – Testing defect occurring in a function that are simple to fix or could be excluded if not resolved by the scheduled implementation date.

### **7.3 UAT Defect Lifecycle**

Defects must be clearly captured and escalated to ensure prompt resolution by development. Each defect submitted by UAT will be assigned a priority, worked by development, resolved, and re-tested by UAT prior to closure. The following is a snapshot of the standard defect lifecycle:



## 8.0 Assumptions

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[Identify any assumptions prior to UAT]

The following are key assumptions made by UAT prior to the commencement of the acceptance test phase:

- QA testing has been completed without any outstanding critical defects.

- The UAT environment will be available for testing.

- Configuration information and test data has been provided and applied as designed.

- All desktops identified for UAT will have the necessary software applications installed. Subject Matter Experts (SME) are available to participate in testing.

## 9.0 Risks

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[Identify any risks that could impact UAT]

Below are risks that could potentially impact the UAT process and prevent its successful and timely completion:

- Unstable UAT environment.

- Inadequate test data.

- Incorrect software version(s).

- Failure to emulate production environment.