**Software Quality Assurance Plan**

For a Track & Field Meet Server

Version 1.0

Submitted in partial fulfillment of the requirements of the degree of MSE

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# Purpose

The purpose of this document is to layout the Software Quality Assurance (SQA) plan for the TFMS project. This project is being developed by Tracy Marshall for Master of Software Engineer final project.

# References

1. Marshall, Tracy. “Project Plan: For a Track & Field Meet Server”.
2. IEEE Std. 730-1998, Standard Software Quality Assurance Plans, IEEE, 1998.

# Management

## Management Organization

The following will be the management organization for the TFMS project.

### Supervisory Committee

* Dr. Mitchell Neilsen
* Dr. Scott DeLoach
* Dr. Torben Amtoft

### Major Professor

* Dr. Mitchell Neilsen

### Software Engineer

* Tracy Marshall

### Technical Inspectors

* Blake Knedler
* Keith Moyer

## Tasks

The tasks for this project have been defined and scheduled in the Project Plan.

## Roles and Responsibility

### Supervisory Committee

The responsibility of the supervisory committee is to attend the project presentations, three in total. At the conclusion of each presentation, the committee will provide feedback to guide the development of the project.

### Major Professor

The responsibility of the major professor is to provide guidance during the entirety of the project. Guidance will be given in the form of feedback given on all aspects of the project.

### Software Engineer

The responsibility of the software engineer is to produce the project deliverables. These deliverables will be presented at the end of each phase of the project.

### Technical Inspectors

The responsibility of the technical inspectors is to perform formal technical reviews of the architectural design of the project. Inspectors will provide feedback and a letter of inspection as an artifact for the conducted inspection.

# Documentation

Documents listed in this section as well as other artifacts will be delivered to the major professor.

## Purpose

The project documentation are deliverables that have been agreed upon as artifacts for the development of the project. These documents will be the main source of information pertaining to the project.

## Minimum Documentation Requirement

### Phase 1

* Time Log
* Vision Document 1.0
* Project Plan
* SQA Plan
* Presentation 1

### Phase 2

* Time Log
* Vision Document 2.0
* Project Plan 2.0
* Architectural Design 1.0
* Formal Requirements Specification
* Technical Inspection Checklist
* Test Plan
* Presentation 2

### Phase 3

* Time Log
* Component Design 1.0
* Technical Inspection Letters
* User Manual
* Project Evaluation
* Presentation 3

# Standards, Practices, Conventions, and Metrics

The Track & Field Meet Server project will follow the standards that are outline and described in the IEEE Software Quality Assurance standards.

# Software Reviews

Software reviews will be conducted at the end of each of the three phases of development. The review will be done in the form of a presentation to the project committee of the deliverables from that phase. Technical reviews will also be conducted by the technical inspectors.

# Test

A test plan document will be produced and provided during the second phase of project development. This document will provide details on unit and integration testing that will occur to verify that critical requirements have been fulfilled.

# Problem Reporting and Corrective Action

The software engineer will be receiving feedback from the supervisory committee and technical inspectors during the progression through the phases of development. It is up to the software engineer to integrate suggestions and fix issues pointed out by those giving feedback. The software engineer will add tasks to the time log for changes that will require significant effort. It is up to the software engineer to seek guidance from the major professor for any other assistance.

# Tools, Techniques, and Methodologies

The project will be developed in Java based on Oracle Java 8 using the Eclipse IDE. All project documentation will be developed using Microsoft Office 2016. The project architecture will be developed with UML using Visual Paradigm.

# Media Control

The project will control project media via multiple means. The project documents and source code will be submitted to a Git repository (<https://github.com/ttmarshall12/KSUMSE.git>) as they become ready for submittal. Revision tracking will be done on all documents at a higher level of granularity using software local to the software engineer’s computer.

# Record Collection, Maintenance, and Retention

The project deliverables and source code will be stored locally on the software engineer’s computer as well as backed up to multiple cloud services available to the software engineer. The deliverables and source code will be published in a Git repository at <https://github.com/ttmarshall12/KSUMSE.git>.

# Risk Management

During project development there may be issues that arise that risk the success of the project. It is up to the software engineer to address these risks and communicate with the major professor to find resolutions to the issues and mitigate risk. The projects risk will be managed by reviews of the project development and communication with the major professor.