***SOFTWARE PROJECT MANAGEMENT PLAN (SPMP)***

**1.0 Introduction**

This section provides an overview of the software engineering project.

* 1. **Problem statement**

One-two paragraph description of the problem being solved

**1.2 Project scope**

**1.2.1 Inclusions**

A description of the software is presented. Major inputs, processing functionality and outputs are described without regard to implementation detail.

**1.2.2 Exclusions**

List any exclusions from the project

**1.3 Major software functions**

A functional decomposition of the software (for use during estimation and scheduling) is developed here. May be outline/bullet points or decomposition diagram format.

**1.4 Performance/Behavior constraints**

Any special requirements for performance or behavior are noted here. Non-functional constraints such as on-line response time or batch window timeframe to complete processing.

**1.5 Management and technical constraints**

**1.5.1 Management constraints**

Any special constraints that affect the manner in which the project will be conducted (e.g., limited resources or 'drop dead' delivery date) are noted here.

**1.5.2 Technical constraints**

Any special constraints that affect the technical approach to development are noted here.

**2.0 Project Estimates**

This section provides cost, effort and time estimates for the projects

**2.1 Historical data used for estimates**

Describes the historical data that is relevant to the estimates presented. This is, what historical work can be used as the basis for your estimations (e.g. prior classwork projects, work projects)

**2.2 Initial Estimate**

Based solely on 1.0 and 2.1 details provide.

**2.2.1 SPMP Completion Estimate**

Estimated effort in hours to complete SPMP

**2.2.2 Overall project estimate**

**2.2.2.1 Line-of Code Estimate**

What is the estimated lines of code to complete project

**2.2.2.2 Function Estimate**

What is the count of the funtionality listed in 1.3

**2.2.2.3 Tasks Estimate**

What are high level tasks to complete (this is not a project plan) but tasks to think about for this estimate

**2.2.2.4 Total overall project time estimate in hours of effort**

Team consensus on overall effort based on estimated values in 2.2.2.1 – 2.2.2.3 plus 2.2.1 and project management effort

**2.3 Estimation techniques applied and results**

A description of each estimation technique and the resultant estimates are presented here. **DO NOT COMPLETE THIS SECTION UNTIL REMAINDER OF SPMP IS COMPLETED AND REVIEWED!**

**2.3.1 Estimation technique 1 – lines of code**

Tables or equations associated with lines of code estimation technique m are presented. Re-estimate lines of code based on completed SPMP.

**2.3.2 Estimate for technique 1 – lines of code**

Estimate in hours generated for lines of code technique.

**2.3.3 Estimation technique 2 – function points**

Tables or equations associated with lines of code estimation technique m are presented. Re-estimate functionality and apply function point counting technique based on completed SPMP.

**2.3.4 Estimate for technique 2 – function points**

Estimate in hours generated for function point technique.

**2.3.5 Estimation technique 3 – process/task**

Tables or equations associated with lines of code estimation technique m are presented. Re-estimate effort based on actual tasks defined in completed SPMP.

**2.3.6 Estimate for technique 3 – process/task**

Estimate in hours generated for process/task technique.

**2.4 Reconciled Estimate**

The final cost, effort, time (duration) estimate for the project (at this point in time) is presented here. Explain your rationale for these numbers compared to the three techniques above.

**2.5 Project Resources**

People, hardware, software, tools, and other resources required to build the software are noted here.

**3.0 Risk Management**

This section discusses project risks and the approach to managing them.

**3.1 Project Risk Table**

Each project risk is described. Name of risk, probability, impact, mitigation and contingency plan

**3.2 Overview of Risk Mitigation, Monitoring, Management**

How will Risk Mitigation, Monitoring and Management be handled. Communication plan, when to apply the mitigation strategy, etc.

**4.0 Project Schedule**

This section presents an overview of project tasks and the output of a project scheduling tool.

**4.1 Project task set**

The process model, framework activities and task set that have been selected for the project are presented in this section.

**4.2 Task network**

Project tasks and their dependencies are noted in this diagrammatic form.

**4.3 Timeline chart**

A project timeline chart is presented. This may include a time line for the entire project or for each staff member.

**5.0 Staff Organization**

The manner in which staff are organized and the mechanisms for reporting are noted.

**5.1 Team structure**

The team structure for the project is identified. Roles are defined.

**5.2 Management reporting and communication**

Mechanisms for progress reporting and inter/intra team communication are identified.

**6.0 Tracking and Control Mechanisms**

Techniques to be used for project tracking and control are identified.

**6.1 Quality assurance and control**

An overview of SQA activities is provided. This is an outline at this point and will be used to create a detailed plan later in the project.

**6.2 Change management and control**

An overview of SCM activities is provided on how changes will be handled – communication of a change, how decision made of approval, defer or reject change request.

**6.3 Tools**

What tools will be used to control access and versioning of artifacts.

**7.0 Appendix**

Supplementary information is provided here.