

# **PROJECT MANAGEMENT PLAN**

## **FOR THE**

### **OXWORD FICTIONARY**

#### **VERSION 1.0**

#### **FEBRUARY 2, 2021**

*Place project logo here*

Team Name: The Fictionary Team

Team Member 1: Ben Campbell

Team Member 2: Catherine Burton

Team Member 3: Christopher Centrella

Team Member 4: Marguerite Naadem

# **Oxword Fictionary, 1.0**

## **PREFACE**

This Project Management Plan (PMP) is intended to provide guidance on the management of the Oxword Fictionary.

The template conforms to the Institute of Electrical and Electronics Engineers (IEEE) Standard for Software Project Management Plans, IEEE Std 1058-1998, for format and content. The template and its standard were selected as they are flexible enough to be applied to any type of project. The management, technical, and supporting processes comply with the guidance provided by Standard for Information Technology - Software Life Cycle Processes, IEEE/Electronic Industries Association (EIA) 12207 Series; Systems Engineering – System Life Cycle Processes, International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 15288; or the Processes for Engineering a System, Electronic Industries Alliance (EIA) Standard 632.

## DOCUMENT CONVENTIONS

The outline of this Project Management Plan (PMP) has been tailored from the Institute of Electrical and Electronics Engineers (IEEE) Standard for Software Project Management Plans, IEEE Std 1058-1998.

Standard conventions are used within this document to direct the reader to specific sections of the text. These sections provide instructions and explanations and require users to insert their own project-specific information. The conventions used in this document are shown below.

[[text]] Global changes. Items that appear in regular text and are surrounded by double brackets represent changes that can be made globally throughout the document.

*Italics* Instructions and explanations. Each section of the template has been annotated with a guidance box, derived from the IEEE 1058-1998 standard, to assist the reader in drafting the content. For example:

### **IEEE Std 1058-1998 Guidance**

*The guidance box provides instructions and explanations from the IEEE 1058-1998 Standard, in italics, as required to assist the user in drafting their own information.*

Guidance boxes should be deleted from the final PMP.

\*A - ADDED M - MODIFIED D - DELETED

V

# Table of Contents

Section	Page
SECTION 1. OVERVIEW .....	1
1.1 Project Summary.....	1
1.1.1 Purpose, Scope, and Objectives.....	1
1.1.2 Assumptions and Constraints.....	1
1.1.3 Project Deliverables.....	2
1.1.4 Master Schedule and Budget Summary .....	2
1.2 Evolution of the Plan.....	2
1.3 Document Structure.....	2
SECTION 2. REFERENCES.....	5
2.1 Standards and Documents .....	5
SECTION 3. DEFINITIONS.....	6
SECTION 4. PROJECT ORGANIZATION .....	7
4.1 External Interfaces.....	7
4.2 Internal Structure .....	7
4.2.1 The Project Manager.....	7
4.3 Project Roles and Responsibilities .....	7
SECTION 5. MANAGEMENT PROCESS .....	10
5.1 Start-up.....	10
5.1.1 Estimation .....	10
5.1.2 Staffing.....	10
5.1.3 Resource Acquisition .....	10
5.1.4 Staff Training.....	11
5.2 Work Planning.....	11
5.2.1 Work Activities .....	11
5.2.2 Schedule Allocation.....	12
5.2.3 Resource Allocation.....	12
5.2.4 Budget Allocation .....	13
5.3 Project Controls.....	13
5.3.1 Requirements Control .....	14

5.3.2	Schedule Control.....	14
5.3.3	Budget Control.....	15
5.3.4	Quality Control.....	16
5.3.5	Project Reporting and Communication .....	16
5.3.6	Metrics Collection .....	17
5.4	Risk Management .....	18
5.5	Project Closeout .....	18
SECTION 6. TECHNICAL PROCESS .....		19
6.1	Process Model.....	19
6.2	Methods, Tools and Techniques.....	19
6.3	Project Infrastructure .....	19
6.4	Product Acceptance .....	20
SECTION 7. SUPPORTING PROCESSES.....		21
7.1	Configuration Management.....	21
7.2	Independent Verification and Validation .....	21
7.3	Documentation .....	22
7.4	Quality Assurance .....	22
7.5	Reviews and Audits .....	23
7.6	Problem Resolution.....	23
7.7	Contractor Management.....	23
7.7.1	Contracting Process .....	24
7.7.2	Contractor Performance Monitoring .....	24
7.8	Process Improvement.....	24
7.8.1	Systems/Software Process Improvement Lead .....	25
7.8.2	Systems Engineering Process Group.....	25
SECTION 8. ADDITIONAL PLANS .....		26
APPENDIX A. OXWORD FICTIONARY MASTER SCHEDULE (MICROSOFT PROJECT) .....		1
APPENDIX B. OXWORD FICTIONARY FACILITIES PLAN .....		1
APPENDIX C. OXWORD FICTIONARY PROJECT TRAINING PLAN .....		3
APPENDIX D. OXWORD FICTIONARY MEASUREMENT PLAN .....		3
APPENDIX E. OXWORD FICTIONARY PRODUCT ENGINEERING AND QUALIFICATION PROCESS.....		4

APPENDIX F. OXWORD FICTIONARY QUALITY ASSURANCE PLAN .....	4
APPENDIX G. OXWORD FICTIONARY CONFIGURATION MANAGEMENT PLAN.....	5

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
---------------	-------------

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
Table 7-1. Oxword Fictionary Documentation .....	22



# SECTION 1. OVERVIEW

## 1.1 Project Summary

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Oxword Fictionary is a fake dictionary phone app for entertainment and creativity. It was built off of the idea that people sometimes use strange and fun words for situations even though the words aren't real words. This dictionary gives them the opportunity to **make** them real words!

One of the basic features is creating fake words, and discovering other words that people made up. Creativity is encouraged, and the app will be designed in order to make things as fun and smooth as possible. Things that will help with this are ways to upvote words, add tags and comments to them, multiple definitions, and possibly several creativity games that present people with words and challenge them to make definitions for it, or vise-versa.

Since this app is being created by college students for a class project, we don't really have any business goals or strategies except to have a fun time, learn a lot, and get a good grade in the end.

### 1.1.1 Purpose, Scope, and Objectives

Oxword fictionary is merely for fun and creativity. The Fictionary team is not really a buisness, so we don't have any objectives except to get a good grade in the end and to have a good learning experience. We plan to release two phone apps, one for iOS, and one for Android. We don't really have any specific plans on how to measure if the apps will reach the objectives or not. This project is unrelated to other projects.

### 1.1.2 Assumptions and Constraints

Here are the constraints on the project:

- **Deadline:** May 3<sup>rd</sup>, 2021
- It must be developed with the Agile method
- We are only allowed to have four to five team members from our class
- We have no budget

- We are generally under the rules of the University and our Professor, as well as the morality and teaching of the Catholic Church and our consciences.

Here are the software and tools we are planning to use:

- **Database:** MySQL, hosted by DreamHost, connected to using LINQ
- **Software:** C# programmed in Xamarin in VisualStudio
- **Hardware:** Android and iOS phones

### 1.1.3 Project Deliverables

We are planning to release an Android and iOS apps. Here are the details:

- **Delivery Date:** May 3<sup>rd</sup>, 2021
- **Locations:** Google Play Store and Apple store
- **Minimum Quantities:** 0 installations
- There is no special media or packaging required

### 1.1.4 Master Schedule and Budget Summary

#### Schedule:

- February: Write Project Planning Documents, figure out all the details on how to make an app, create a basic app
- March: Implement all the essential and recommended requirements
- April: Use Agile to implement optional requirements

**Budget:** \$0

## 1.2 Evolution of the Plan

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Modifications and all version control of this PMP will be made by the project manager, Ben Campbell, and perhaps some of the other team members if they desire. There are no formal or strict plans on managing version control, it will simply be up to Ben's discretion and common sense.

## 1.3 Document Structure

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This plan is organized as follows:

- a. Section 1, Project Overview. This section provides an overview of the scope and objectives of the project, the project's assumptions and constraints, reference to the project deliverables, schedule and budget, and a description of the evolution of the plan.
- b. Section 2, References. This section provides a list of all documents, policies, templates, processes, and other sources of information referenced in the plan.
- c. Section 3, Definitions. This section contains the abbreviations and acronyms required to properly understand this planning document.
- d. Section 4, Project Organization. This section identifies interfaces to organizational entities external to the project, the project's internal organizational structure, and defines roles and responsibilities for the project.
- e. Section 5, Management Process. This section describes the planning, measurement, tracking, reporting, risk control mechanisms needed to provide management control over the technical processes and product quality, and appropriate project initiation and closeout procedures.
- f. Section 6, Technical Process. This section describes the technical solution in terms of a process model and implementation methods, tools, and techniques to be used to develop the various work products, plans for establishing and maintaining the project infrastructure, and the product acceptance.
- g. Section 7, Supporting Processes. This section describes processes that are employed to facilitate and control the technical processes and the state of the product. These include, but are not limited to, configuration management, verification and validation, documentation, quality assurance, reviews and audits, problem resolution, and contractor management, and methods to ensure continuous process improvement.
- h. Section 8, Additional Plans. This section addresses the logistic support strategy to be applied to increase the system's operational effectiveness.
- i. Appendix A. Oxword Fictionary Master Schedule (Microsoft Project)
- j. Appendix B. Oxword Fictionary Facilities Plan

- k. Appendix C. Oxword Fictionary Project Training Plan
- l. Appendix D. Oxword Fictionary Measurement Plan
- m. Appendix E. Oxword Fictionary Product Engineering and Qualification Process
- n. Appendix F. Oxword Fictionary Quality Assurance Plan
- o. Appendix G. Oxword Fictionary Configuration Management Plan

## SECTION 2. REFERENCES

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### **IEEE Std 1058-1998 Guidance**

#### **(Clause 2) References**

*This clause shall provide a complete list of all documents and other sources of information referenced in the document. Each document should be identified by title, report number, date, author, path/name for electronic access, and publishing organization. Other sources of information, such as electronic files, shall be identified using unique identifiers such as date and version number. Any deviations from referenced standards or policies shall be identified and justifications shall be provided.*

### 2.1 Standards and Documents

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The standards and documents listed below are referenced in this document:

Oxword Fictionary Documentation Style Guide:

<https://github.com/BenTBCampbell/Software-Engineering/blob/main/DocumentationFiles/DocumentationFormattingConventions.md>

## SECTION 3. DEFINITIONS

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PMP - Project Management Plan

## SECTION 4. PROJECT ORGANIZATION

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### 4.1 External Interfaces

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The Oxword Pictionary application, code, documentation, and all other general things created by the Fictionary Team are ours. We are part of the Software Engineering Class under Professor Wessel, who works for Franciscan university of Steubenvill.

### 4.2 Internal Structure

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#### 4.2.1 The Project Manager

Ben Campbell

##### 4.2.1.1 Scope of Authority.

He is allowed to influence the general decisions of the group, especially determining tie breakers, but there are no formal authorities or limitations that he has.

##### 4.2.1.2 Scope of Responsibility.

Plan management, meeting organization and planning, general integration between members, as well as all the general responsibilities that all team members have.

##### 4.2.1.3 Internal Responsibilities.

Same as section 4.2.1.2

##### 4.2.1.4 External Responsibilities.

Making weekly report to Professor Wessel

### 4.3 Project Roles and Responsibilities

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#### 4.3.1 Programmers

Programmers write the software for the application. There may be sub-groups of platform-specific programmers for the Android and iOS code.

**Members:** Everyone

*Apple Programmer:* Catherine

### 4.3.2 Database Managers

Database managers are in charge of figuring out how to use the database, designing its structure, and writing the code to access and modify it.

**Members:** Chris, Catherine

### 4.3.3 Designers

Designers are in charge of designing the UI (User Interface) and other graphics used in the app, such as the logo.

**Members:** Catherine, Chris

### 4.3.4 Documenters

Documenters make the documentation files for the project (such as this file), as well as for the users on the GitHub Wiki.

**Members:** Ben, Marguerite

### 4.3.5 Code Maintenance

Code Maintenance members work on the general structure and cleanliness of the code to make sure everything is commented, well-formatted, and follows the project styling guides.

**Members:** Chris, Ben

### 4.3.6 Code Testers

Testers are in charge of testing the code.

**Members:** Marguerite, Ben

### 4.3.7 Test Users

Test users are regular students who are outside the actual development team. Their job is to review the various features and the overall app after each feature is implemented



to help make suggestions and give the development team an idea of what to work on next to make the app the best experience possible.

The list of members tends to change a lot, but this is what it currently is:

**Members:** Aaron Bangs, John Wuller, Kevin Marr, Joey Casey, Susanna Naaden, Alex Fortman, Theresa Geiger, Jensey Clement

# SECTION 5. MANAGEMENT PROCESS

## 5.1 Start-up

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We plan to spend the month of February learning everything we need to know to make this app. Since we are students, and this is a college course, we are hoping to spend about six hours a week or less working on this project throughout its entire development.

### 5.1.1 Estimation

**Cost:** \$0. As we have no budget, we plan to have no cost, but if we really think we need to spend money on something, we will probably end up splitting the cost equally among the members.

### 5.1.2 Staffing

We are only allowed to have four to five members, and those members must be a part of the entire project. Here is a plan for what roles will be needed at each project phase.

**Phase 1:** Learning and making a basic app (February)

Important roles: Project Manager, Documenter, Programmers, Database Managers, Designers

**Phase 2:** Adding essential and recommended features (March)

Important roles: Project Manager, Documenter, Programmers, Database Managers, Designers, Testers, Users

**Phase 3:** Adding recommended features (April)

Important roles: Project Manager, Documenter, Programmers, Database Managers, Designers, Testers, Users

### 5.1.3 Resource Acquisition

- We are not planning to spend any money. We will use all the resources we already have on our own, and what the school provides.
- **Database:** We already have one through Ben's website host.

- **Software:** Install it from online.
- **Hardware:** Use everyone's personal computers and/or the ones that the school provides.
- **Facilities:** Use the school classrooms and facilities.
- **Transportation:** Mostly walking, or driving if the team member is lucky enough to own a car.

### 5.1.4 Staff Training

There will be no formal training meetings, although there may be a little bit of training at our weekly meetings if it is deemed necessary and useful. We do not fully know what we need to be trained on yet, but we have already begun to learn some of what we need to through online articles and videos. Here is a list of some of the role-specific training that we are going through:

- **Everyone:** Git, GitHub
- **Programmers:** C#, Visual Studio, Xamarian
- **Database Managers:** MySQL, LINQ
- **Designers:** Xamarian Forms
- **Documenters:** GitHub Wiki

## 5.2 Work Planning

### ***IEEE Std 1058-1998 Guidance***

#### ***(Subclause 5.2) Work plan***

*This clause shall specify the work activities, schedule, resources, and budget details for the project.*

The following paragraphs provide a working management plan for the acquisition of the Oxword Fictionary.

### 5.2.1 Work Activities

### ***IEEE Std 1058-1998 Guidance***

#### ***(Subclause 5.2.1) Work activities***

*This subclause shall specify the various work activities to be performed in the project. A work breakdown structure shall be used to depict the work activities and the relationships among work activities. Work activities should be decomposed to a level that exposes all project risk factors and allows accurate estimate of resource requirements and schedule duration for each work activity. Work packages should be used to specify, for each work activity, factors such as the necessary resources, estimated duration, work products to be produced, acceptance criteria for the work products, and predecessor and successor work activities. The level of decomposition for different work activities in the work breakdown structure may be different depending on factors such as the quality of the requirements, familiarity of the work, and novelty of the technology to be used.*

## 5.2.2 Schedule Allocation

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.2.2) Schedule allocation**

*This subclause shall provide scheduling relationships among work activities in a manner that depicts the time-sequencing constraints and illustrates opportunities for concurrent work activities. Any constraints on scheduling of particular work activities caused by factors external to the project shall be indicated in the work activity schedule. The schedule should include frequent milestones that can be assessed for achievement using objective indicators to assess the scope and quality of work products completed at those milestones. Techniques for depicting schedule relationships may include milestone charts, activity lists, activity Gantt charts, activity networks, critical path networks, and PERT.*

## 5.2.3 Resource Allocation

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.2.3) Resource allocation**

*This subclause shall provide a detailed itemization of the resources allocated to each major work activity in the project work breakdown structure. Resources shall include the*

*numbers and required skill levels of personnel for each work activity. Resource allocation may include, as appropriate, personnel by skill level and factors such as computing resources, tools, special testing and simulation facilities, and administrative support. A separate line item should be provided for each type of resource for each work activity. A summary of resource requirements for the various work activities should be collected from the work packages of the work breakdown structure and presented in tabular form.*

## 5.2.4 Budget Allocation

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.2.4) Budget allocation**

*This subclause shall provide a detailed breakdown of necessary resource budgets for each of the major work activities in the work breakdown structure. The activity budget shall include the estimated cost for activity personnel and may include, as appropriate, costs for factors such as travel, meetings, computing resources, tools, special testing and simulation facilities, and administrative support. A separate line item shall be provided for each type of resource in each activity budget. The work activity budget may be developed using a spreadsheet and presented in tabular form.*

## 5.3 Project Controls

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.3) Control plan**

*This subclause shall specify the metrics, reporting mechanisms, and control procedures necessary to measure, report, and control the product requirements, the project schedule, budget, and resources, and the quality of work processes and work products. All elements of the control plan should be consistent with the organization's standards, policies, and procedures for project control as well as with any contractual agreements for project control.*

## 5.3.1 Requirements Control

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.3.1) Requirements control plan**

*This subclause shall specify the control mechanisms for measuring, reporting, and controlling changes to the product requirements. This subclause shall also specify the mechanisms to be used in assessing the impact of requirements changes on product scope and quality, and the impacts of requirements changes on project schedule, budget, resources, and risk factors. Configuration management mechanisms shall include change control procedures and a change control board. Techniques that may be used for requirements control include traceability, prototyping and modeling, impact analysis, and reviews.*

## 5.3.2 Schedule Control

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.3.2) Schedule control plan**

*This subclause shall specify the control mechanisms to be used to measure the progress of work completed at the major and minor project milestones, to compare actual progress to planned progress, and to implement corrective action when actual progress does not conform to planned progress. The schedule control plan shall specify the methods and tools that will be used to measure and control schedule progress. Achievement of schedule milestones should be assessed using objective criteria to measure the scope and quality of work products completed at each milestone.*

The following paragraphs define the management approach for schedule control of the Oxword Fictionary.

#### **5.3.2.1 Schedule Tracking.**

#### **5.3.2.2 Schedule Performance Reports.**

### **5.3.2.3 Schedule Reviews.**

### **5.3.2.4 Progress Variance Monitoring.**

### **5.3.2.5 Progress Variance Resolution.**

### **5.3.2.6 Follow-Up on Corrective Action.**

## **5.3.3 Budget Control**

### ***IEEE Std 1058-1998 Guidance***

#### ***(Subclause 5.3.3) Budget control plan***

*This subclause shall specify the control mechanisms to be used to measure the cost of work completed, compare planned cost to budgeted cost, and implement corrective action when actual cost does not conform to budgeted cost. The budget control plan shall specify the intervals at which cost reporting will be done and the methods and tools that will be used to manage the budget. The budget plan should include frequent milestones that can be assessed for achievement using objective indicators to assess the scope and quality of work products completed at those milestones. A mechanism such as earned value tracking should be used to report the budget and schedule plan, schedule progress, and the cost of work completed.*

The following paragraphs define the management approach for budget control of the  
The following paragraphs define the management approach for schedule control of the  
Oxword Fictionary.

### **5.3.3.1 Cost Management.**

#### **5.3.3.2 Methods to Ensure Cost Adherence.**

#### **5.3.3.3 Cost Control.**

#### **5.3.3.4 Contractor Cost Control.**

#### **5.3.3.5 Cost Variance Measurement.**

#### **5.3.3.6 Cost Variance Corrective Action.**

### **5.3.4 Quality Control**

#### ***IEEE Std 1058-1998 Guidance***

##### ***(Subclause 5.3.4) Quality control plan***

*This subclause shall specify the mechanisms to be used to measure and control the quality of the work processes and the resulting work products. Quality control mechanisms may include quality assurance of work processes, verification and validation, joint reviews, audits, and process assessment.*

### **5.3.5 Project Reporting and Communication**

#### ***IEEE Std 1058-1998 Guidance***

##### ***(Subclause 5.3.5) Reporting plan***



*This subclause shall specify the reporting mechanisms, report formats, and information flows to be used in communicating the status of requirements, schedule, budget, quality, and other desired or required status metrics within the project and to entities external to the project. The methods, tools, and techniques of communication shall be specified in this subclause. The frequency and detail of communications related to project measurement and control shall be consistent with the project scope, criticality, risk, and visibility.*

The following paragraphs define the management plan for ensuring the broadest communication of needed information for project coordination.

#### **5.3.5.1 Electronic Media.**

#### **5.3.5.2 Meetings.**

#### **5.3.5.3 Information Repository.**

#### **5.3.5.4 Reviews.**

#### **5.3.5.5 Status Reporting.**

### **5.3.6 Metrics Collection**

#### ***IEEE Std 1058-1998 Guidance***

##### ***(Subclause 5.3.6) Metrics collection plan***

*This subclause shall specify the methods, tools, and techniques to be used in collecting and retaining project metrics. The metrics collection plan shall specify the metrics to be collected, the frequency of collection, and the methods to be used in validating, analyzing, and reporting the metrics.*

## 5.4 Risk Management

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### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.4) Risk management plan**

*This subclause shall specify the risk management plan for identifying, analyzing, and prioritizing project risk factors. This subclause shall also describe the procedures for contingency planning, and the methods to be used in tracking the various risk factors, evaluating changes in the levels of risk factors, and the responses to those changes.*

*Risk factors that should be considered include risks in the acquirer-supplier relationship, contractual risks, technological risks, risks caused by the size and complexity of the product, risks in the development and target environments, risks in personnel acquisition, skill levels and retention, risks to schedule and budget, and risks in achieving acquirer acceptance of the product.*

## 5.5 Project Closeout

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### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 5.5) Project closeout plan**

*This subclause shall contain the plans necessary to ensure orderly closeout of the project. Items in the closeout plan should include a staff reassignment plan, a plan for archiving project materials, a plan for postmortem debriefings of project personnel, and preparation of a final report to include lessons learned and analysis of project objectives achieved.*

## SECTION 6. TECHNICAL PROCESS

### 6.1 Process Model

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**IEEE Std 1058-1998 Guidance****(Subclause 6.1) Process model**

*This subclause shall define the relationships among major project work activities and supporting processes by specifying the flow of information and work products among activities and functions, the timing of work products to be generated, reviews to be conducted, major milestones to be achieved, baselines to be established, project deliverables to be completed, and required approvals that span the duration of the project. The process model for the project shall include project initiation and project termination activities. To describe the process model, a combination of graphical and textual notations may be used. Any tailoring of an organization's standard process model for a project shall be indicated in this subclause.*

### 6.2 Methods, Tools and Techniques

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**IEEE Std 1058-1998 Guidance****(Subclause 6.2) Methods, tools, and techniques**

*This subclause shall specify the development methodologies, programming languages and other notations, and the tools and techniques to be used to specify, design, build, test, integrate, document, deliver, modify and maintain the project deliverable and non-deliverable work products. In addition, the technical standards, policies, and procedures governing development and/or modification of the work products shall be specified.*

### 6.3 Project Infrastructure

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**IEEE Std 1058-1998 Guidance**

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**(Subclause 6.3) Infrastructure plan**

*This subclause shall specify the plan for establishing and maintaining the development environment (hardware, operating system, network, and software), and the policies, procedures, standards, and facilities required to conduct the project. These resources may include workstations, local area networks, tools for analysis, design, implementation, testing, and project management, desks, office space, and provisions for physical security, administrative personnel, and janitorial services.*

## 6.4 Product Acceptance

**IEEE Std 1058-1998 Guidance****(Subclause 6.4) Product acceptance plan**

*This subclause shall specify the plan for acquirer acceptance of the deliverable work products generated by the project. Objective criteria for determining acceptability of the deliverable work products shall be specified in this plan and a formal agreement of the acceptance criteria shall be signed by representatives of the development organization and the acquiring organization. Any technical processes, methods, or tools required for product acceptance shall be specified in the product acceptance plan. Methods such as testing, demonstration, analysis, and inspection should be specified in this plan.*

## SECTION 7. SUPPORTING PROCESSES

### 7.1 Configuration Management

---

#### **IEEE Std 1058-1998 Guidance**

##### **(Subclause 7.1) Configuration management plan**

*This subclause shall contain the configuration management plan for the project, to include the methods that will be used to provide configuration identification, control, status accounting, evaluation, and release management. In addition, this subclause shall specify the processes of configuration management to include procedures for initial baselining of work products, logging and analysis of change requests, change control board procedures, tracking of changes in progress, and procedures for notifying concerned parties when baselines are first established or later changed. The configuration management process should be supported by one or more automated configuration management tools.*

### 7.2 Independent Verification and Validation

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#### **IEEE Std 1058-1998 Guidance**

##### **(Subclause 7.2) Verification and validation plan**

*This subclause shall contain the verification and validation plan for the project to include scope, tools, techniques, and responsibilities for the verification and validation work activities. The organizational relationships and degrees of independence between development activities and verification and validation activities shall be specified. Verification planning should result in specification of techniques such as traceability, milestone reviews, progress reviews, peer reviews, prototyping, simulation, and modeling. Validation planning should result in specification of techniques such as testing, demonstration, analysis, and inspection. Automated tools to be used in verification and validation should be specified.*

## 7.3 Documentation

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 7.3) Documentation plan**

*This subclause shall contain the documentation plan for the project, to include plans for generating non-deliverable and deliverable work products. Organizational entities responsible for providing input information, generating, and reviewing the various documents shall be specified in the documentation plan. The documentation plan should include a list of documents to be prepared, the controlling template or standard for each document, who will prepare it, who will review it, due dates for review copy and initial baseline version, and a distribution list for review copies and baseline versions.*

TABLE 7-1. OXWORD FICTIONARY DOCUMENTATION

Document Type	Format Standard	Estimated Page Count	Peer Review Type

## 7.4 Quality Assurance

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 7.4) Quality assurance plan**

*This subclause shall provide the plans for assuring that the project fulfills its commitments to the process and the product as specified in the requirements specification, the document, supporting plans, and any standards, procedures, or guidelines to which the process or the product must adhere. Quality assurance procedures may include analysis, inspections, reviews, audits, and assessments. The quality assurance plan should indicate*

*the relationships among the quality assurance, verification and validation, review, audit, configuration management, system engineering, and assessment processes.*

## 7.5 Reviews and Audits

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 7.5) Reviews and audits plan**

*This subclause shall specify the schedule, resources, and methods and procedures to be used in conducting project reviews and audits. The plan should specify plans for joint acquirer-supplier reviews, management progress reviews, developer peer reviews, quality assurance audits, and acquirer-conducted reviews and audits. The plan should list the external agencies that approve or regulate any product of the project.*

## 7.6 Problem Resolution

### **IEEE Std 1058-1998 Guidance**

#### **(Subclause 7.6) Problem resolution plan**

*This subclause shall specify the resources, methods, tools, techniques, and procedures to be used in reporting, analyzing, prioritizing, and processing problem reports generated during the project. The problem resolution plan should indicate the roles of development, configuration management, the change control board, and verification and validation in problem resolution work activities. Effort devoted to problem reporting, analysis, and resolution should be separately reported so that rework can be tracked and process improvement accomplished.*

## 7.7 Contractor Management

### **IEEE Std 1058-1998 Guidance**

### **(Subclause 7.7) Subcontractor management plans**

*This subclause shall contain plans for selecting and managing any subcontractors that may contribute work products to the project. The criteria for selecting subcontractors shall be specified and the management plan for each subcontract shall be generated using a tailored version of this standard. Tailored plans should include the items necessary to ensure successful completion of each subcontract. In particular, requirements management, monitoring of technical progress, schedule and budget control, product acceptance criteria, and risk management procedures shall be included in each subcontractor plan. Additional topics should be added as needed to ensure successful completion of the subcontract. A reference to the official subcontract and prime contractor/subcontractor points of contact shall be specified.*

## **7.7.1 Contracting Process**

## **7.7.2 Contractor Performance Monitoring**

# **7.8 Process Improvement**

### **IEEE Std 1058-1998 Guidance**

### **(Subclause 7.8) Process improvement plan**

*This subclause shall include plans for periodically assessing the project, determining areas for improvement, and implementing improvement plans. The process improvement plan should be closely related to the problem resolution plan; for example, root cause analysis of recurring problems may lead to simple process improvements that can significantly reduce rework during the remainder of the project. Implementation of improvement plans should be examined to identify those processes that can be improved without serious disruptions to an ongoing project and to identify those processes that can best be improved by process improvement initiatives at the organizational level.*

The following paragraphs provide data on the Oxword Fictionary efforts for continuing process improvement.



## **7.8.1 Systems/Software Process Improvement Lead**

## **7.8.2 Systems Engineering Process Group**

## SECTION 8. Additional Plans

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### ***IEEE Std 1058-1998 Guidance***

#### ***(Clause 8) Additional plans***

*This clause shall contain additional plans, or activities, required to satisfy product requirements and contractual terms.*

*Additional plans for a particular project may include plans for assuring that safety, privacy, and security requirements for the product are met, special facilities or equipment, product installation plans, user training plans, integration plans, data conversion plans, system transition plans, product maintenance plans, logistic engineering approach, or product support plans.*

## APPENDICES

### **IEEE Std 1058-1998 Guidance**

*Annexes may be included, either directly or by reference to other documents, to provide supporting details that could detract from the document if included in the body.*

#### **General Guidance**

*In this template, the following appendices are used for reference purposes only. It should not be assumed that the referenced documents exist as an example.*

## Appendix A. Oxword Fictionary Master Schedule (Microsoft Project)

### **Guidance**

*The objective of the Oxword Fictionary master schedule is to provide management with the task map and tracking tool needed to guide the project in the performance of its mission.*

*The Oxword Fictionary master schedule's Microsoft Project representation of the WBS would be tailored from the templates available from the SSC Pacific Process Asset Library (PAL) in the "SW-CMM Archive". Draft Microsoft Project templates are found under the "Process Assets by SW-CMM KPA", "Software Project Planning (SPP)" in the "Tools" section. These templates can be tailored up or down to meet specific project needs.*

## Appendix B. Oxword Fictionary Facilities Plan

### **Guidance**

*The objective of the Oxword Fictionary Facilities Plan is to document the environmental needs of the project. These needs include space, equipments, security, safety, support*

*tools, and the staff necessary to maintain and operate an environment needed for project operations.*

*The facilities requirements for projects vary broadly, often with several projects sharing both facilities and computer resources. There currently are no templates available from the SSC Pacific PAL to assist in developing a facilities plan. However, recommended issues to address in a Facilities Plan would include, but not be limited to, the following list:*

- 1. Facility Objectives/General Description*
- 2. Facility Locations (i.e., Building Locations)*
- 3. Facility Diagrams*
  - a. Floor Plans (i.e., lab, work cubicles)*
  - b. Environmental Requirements i.e. Heating, Lighting*
- 4. Facilities Equipment Requirements*
  - a. Equipment Lists (i.e., work stations, development, test)*
  - b. Equipment Interface Diagrams*
  - c. Space Equipment Layouts*
  - d. Inspections and Records Requirements*
- 5. Facilities Software Requirements*
  - a. Software by Development/Test Host Equipment*
  - b. Software by Workstation*
- 6. Facilities Operating Personnel Requirements*
- 7. Facilities Operating Personnel Training Requirements*
- 8. Security Measures*
  - a. Internal*
  - b. External*
- 9. Safety Measures*
- 10. Maintenance Requirements (i.e., spaces, per equipment)*
- 11. Facilities Performance Measurements*

## Appendix C. Oxword Fictionary Project Training Plan

### **Guidance**

*The objective of the Oxword Fictionary Project Training Plan is to develop the skills and knowledge of the project staff so they can perform their roles effectively and efficiently.*

*The Oxword Fictionary Project Training Plan would be tailored from the Department/Project Training Plan Template available from the SSC Pacific Process Asset Library (PAL). The template is located in the "Process Assets" sub-page under the "Organizational Training" PA in the "Plans" section. The template can be tailored up or down to meet specific project needs.*

## Appendix D. Oxword Fictionary Measurement Plan

### **Guidance**

*The objective of the Oxword Fictionary Measurement Plan is to develop and present the data needed to support project management information needs necessary to ensure objective decision-making.*

*The Oxword Fictionary Measurement Plan would be tailored from the Software Measurement Plan Template available from the SSC Pacific Process Asset Library (PAL) in the "SW-CMM Archive". This template can be found under the "Process Assets by SW-CMM KPA", "Software Project Tracking and Oversight (SPTO)" KPA in the "Tools" section. The template can be tailored up or down to meet specific project needs.*

## Appendix E. Oxword Fictionary Product Engineering and Qualification Process

### **Guidance**

*The objective of the Oxword Fictionary Product Engineering and Qualification (PE&Q) Process is to document the processes comprising a technical solution for development, maintenance, test, and product qualification.*

*The Oxword Fictionary PE&Q Process would be tailored from the Product Engineering and Qualification Process available from the SSC Pacific Process Asset Library (PAL). The process is located in the "Process Assets" sub-page under the "Technical Solution" PA in the "Process" section. The PE&Q Process can be tailored up or down to meet specific project needs.*

## Appendix F. Oxword Fictionary Quality Assurance Plan

### **Guidance**

*The objective of the Oxword Fictionary Quality Assurance Plan is to provide staff and management with objective insights into processes and associated work products, ensuring their conformance to documented requirements.*

*The Oxword Fictionary Quality Assurance Plan would be tailored from the Quality Assurance Plan Template available from the SSC Pacific Process Asset Library (PAL). The process is located in the "Process Assets" sub-page under the "Process and Product Quality Assurance (PPQA)" PA in the "Plans" section. The template can be tailored up or down to meet specific project needs.*

# Appendix G. Oxword Fictionary Configuration Management Plan

## **Guidance**

*The objective of the Oxword Fictionary Configuration Management Plan is to establish and maintain the integrity of Oxword Fictionary work products using configuration identification, configuration control, configuration status accounting, and configuration audits.*

*The Oxword Fictionary Configuration Management Plan would be tailored from the Configuration Management Plan Template available from the SSC Pacific Process Asset Library (PAL). The template is located in the "Process Assets" sub-page under the "Configuration Management (CM)" PA in the "Plans" section. The template can be tailored up or down to meet specific project needs.*

### DOCUMENT CHANGE REQUEST (DCR)

Document Title: <b>[[Project]] Project Management Plan</b>	Tracking Number:
Name of Submitting Organization:	
Organization Contact:	Phone:
Mailing Address:	
DCR Description:	Date:
Change Location: (use section #, figure #, table #, etc.)	
Proposed change:	



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