

# Template For A Software Maintenance Plan

# **A Software Maintenance Plan**

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Author: Thomas M. Pigoski

**SEPT Product Number 46** 

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### Author: Thomas M. Pigoski

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Produced by Software Engineering Process Technology (SEPT) 2725 NW Pine Cone Drive Issaquah, WA 98027 Tel: 425-391-2344 Fax: 425-557-9419 E-mail: <u>Stanmagee@smartwire.net</u> Web Page <u>www.12207.com</u>

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## 11/28/2011

# **Revision History**

Revision Number Second Edition	Purpose Incorporated compliance with ISO/IEC 12207: Amd 1: 2002, Information Technology-Software Life Cycle Processes (AMENDMENT 1) and ISO/IEC 12207: Amd 2: 2004, Information Technology-Software Life Cycle Processes
	(AMENDMENT 2)
Third Edition	Incorporated compliance with ISO/IEC 14764: 2006, Software Engineering – Software Life Cycle Processes - Maintenance
Forth Edition	Incorporated compliance with ISO/IEC 12207:2008, Systems and software engineering - Software life cycle processes

### Introduction

#### Background

The last stage of the software engineering life cycle, operation and maintenance, often takes the majority of life cycle funds. Proper planning can help reduce life cycle costs for this stage. It is therefore prudent to possess software maintenance plans and procedures to contain life cycle costs, and to operate an efficient organization. Maintenance planning prepares for the personnel, environment, and financial resources required to provide software maintenance for software systems. Planning consist of developing a Maintenance Concept and then a Maintenance Plan.

Software Engineering Process Technology (SEPT) in conjunction with the noted Software Maintenance expert Thomas Pigoski has developed this template for a Software Maintenance Plan to aid the software engineer in implementing software maintenance requirements. This template is easy to use, self-explanatory, and does not require expensive training or extensive experience.

#### **About Software Maintenance**

Software maintenance is the totality of activities required to provide cost-effective support to a software system. Activities are performed during the pre-delivery stage as well as the post-delivery stage. Pre-delivery activities include planning for post-delivery operations, supportability, and logistics determination. Post-delivery activities include software modification, training, and operating a help desk.

#### How to use this Document

This document is designed to aid a person with limited knowledge of software maintenance requirements and methods to plan for software maintenance of a project or system. This template may be applied to manual or automated (computer processes) methods and can be easily implemented by one or more persons. It is applicable to small, highly critical 10-line software programs and to programs over 1 million lines of code.

#### **Organizational Requirements**

Maintenance is performed by the developer, a separate maintainer, or by a third-party organization. It is important that the organization responsible for maintenance be identified in writing with full responsibilities. The Maintenance Plan accomplishes this. The maintainer should develop the Maintenance Plan as well as the supporting procedures. Since software maintenance activities invoke the use of organizational resources, it is recommended that the highest level of management in the organization approves of this undertaking and approves the final version of the plan and the procedures. Other functions that should also review and approve this plan include Software Quality Assurance, Software Engineering, Software Testing, Project Management (when applicable), the organization's Software Configuration Management Function (when applicable), and the customer (when applicable).

This template's illustrative text is designed for use as is, by stripping the tutorial notations underlined in the text. The text can also be modified for requirements and guidance to meet organizational needs, and unique environments. It is not a requirement to use the paragraph numbers contained in this document and additional comments are encouraged whenever appropriate to fully comply with an organization's specific requirements. This template is applicable to all types of software from information technology, commercial, scientific, and other non-business applications (such as creating a complex web site). The user of this template should spell out all of the issues that are prevailing regarding the need for software maintenance prior to tailoring the template to ascertain that all such organizational issues are addressed.

#### **Reference Software Maintenance Standards**

This template meets the requirements of the following standards:

#### **International Standards**

- ISO/IEC 12207:2008, Systems and *software engineering Software life cycle processes*
- ISO/IEC 14764: 2006, Software Engineering Software Life Cycle Processes Maintenance

#### **USA Standards – (International application)**

• IEEE Std 14764: 2006, Software Engineering – Software Life Cycle Processes - Maintenance

Standards and Specifications may be procured through SEPT at <u>www.12207.com</u>.

#### **Reference Books**

<u>Practical Software Maintenance: Best Practices for Managing Your Software Investment,</u> Thomas M. Pigoski, John Wiley and Sons, New York, 1997. <u>Guide to Software Engineering Standards and Specifications</u>, S. Magee and L Tripp. Artech

House, 1997

### **Product Support**

SEPT will provide 3 hours of free consulting with this product concerning the understanding and application of this template, to be provided within 60 days of purchase. This consultation is available at the SEPT Help Desk. Contact us at 425-391-2344 between the hours of 8 AM to 5 PM PST, Monday through Friday, or e-mail your questions to <u>stanmagee@smartwire.net</u>.

#### Warranties and Liability

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### **Template for a Software Maintenance Plan**

Enter the Company/Organization Name

#### Software Maintenance Plan

Enter the Program/Project Name or Product Name

Enter date prepared/approved

Enter version/revision number

Enter contact reference

(Example: Company ABC Software Maintenance Plan System XYZ Date Prepared: 9-1-2006 Date Approved: 10-1-2006 Version 1.0 Contract XYZ

Enter "prepared by" name and the names of approving manager(s)

(Example: Prepared by John Doe "Head", Software Maintenance Department

> Approved by Mary Smith Director of Operations)