

SOFTWARE RISK MANAGEMENT TOOL THE STATISTICAL MANAGER

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SIAH GUAT CHOON

FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
UNIVERSITY OF MALAYA

1999

Perpustakaan Universiti Malaya



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HAMSIAH BT MOHAMAD ZAHARI
UNIT REPROGRAFI
PERPUSTAKAAN UTAMA
UNIVERSITI MALAYA

UPR

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Abstract

Software risk management, as one of the fields in software engineering discipline, has been gaining more and more attention in software developer community. However, literature on software risk management is meager. More studies are needed so that software organizations will have better understanding on software risks and will be able to deal with risks more effectively.

This dissertation addresses the current software project problems, with a detailed discussion on the current software development approaches and the available risk management techniques, as well as a comparative look at the available automated risk management tools. It is followed by the development of a Windows-based risk management tool named 'Risk Management Tool: A Statistical Manager'. The objectives of this tool are to aid software developers to capture and analyze various types of project data statistically. Statistical Manager has two main parts: the Database and the Statistic. The Database deals with the gathering and retention of project and risk information. The goal of this database is to create a body of information/knowledge and make it available to the software organization. The Statistic deals with the subsequent manipulation of the project data. Basic statistics, regression and correlation are included here. It can help users to resolve a number of key software engineering decisions, such as to answer question like, "Is there a relatively high correlation between risk level and project size?" New projects can review the organization's risk factors and methods of handling specific risks.

The tool is well accepted by evaluators. They have commented that this is a very interesting tool. The ideas of regression and correlation based on concrete data sources are much commented. Many evaluators are happy with the statistical part and the simple and friendly interface. The tool is also easy to learn and use.

Contents

Chapter One: Introduction	1
1.1 What Is Software Risk Management?.....	1
1.2 Risk Definitions.....	2
1.3 Benefits of Performing Risk Management.....	4
1.4 Reasons Why Software Risk Management Is Not Performed.....	5
1.5 The Current Problems.....	7
1.6 Causes of Software Problems.....	10
1.7 The Importance of Software Risk Management Tool.....	15
1.8 Structure of the Thesis.....	16
Chapter Two: Research Objectives	19
Chapter Three: Literature Reviews	23
3.1 Formal/Traditional Risk Management Services.....	50
3.2 Automated Risk Management Aids.....	50
Chapter Four: The Development of A Risk Management Tool	57
4.1 Introduction to Risk Management Tool: Statistical Manager.....	57
4.2 Objectives of the Tool.....	60
4.3 Functional Requirements.....	62
4.4 Non-Functional/Performance Requirements.....	63
4.5 Development Methodology.....	65
4.6 Targeted Users.....	67
4.7 Software Selections.....	68
4.8 Hardware Selections.....	70
4.9 Design of the Tool.....	72
4.10 Screen Design of The Statistical Manager.....	79

4.11 Testing Strategies.....	88
4.11.1 Black Box Testing.....	88
4.11.2 Functional Testing.....	92
4.11.3 Graphical User Interfaces Testing.....	95
4.11.4 Help Facilities Testing.....	98
Chapter Five: Tool Evaluations	100
5.1 Achievements of Statistical Manager with respect to the Non-functional Requirement/Performance Requirements.....	104
5.2 Comparison of Statistical Manager with Similar Existing Tools.....	107
Chapter Six: Conclusions and Future Work	114
Bibliography	120
Appendix A: Definitions	129
Appendix B: Class Design	143
Appendix C: Screen Design and Snapshots	198
Appendix D: Evaluation Questionnaires	218
Appendix E: Software Risk Management Guiding Principles, FAQ and Myths	221
Appendix F: Installation Guide	227