A USER'S GUIDE FOR DEFINING SOFTWARE REQUIREMENTS

The Other Side of Software

SECOND EDITION

Carolyn Shamlin

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SECOND EDITION

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藏书章

Carolyn Shamlin

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FOREWORD

Altogether too many software systems are created with only the sketchiest understanding of how the system is to be used and what its business purposes are. This is especially true for systems that are designed to provide information to *knowledge workers*. The usefulness of an information system depends not only on whether the answers can be obtained, but on how much time and effort it takes to get the answer. Not only must the end result be relevant to the user, but the end result must be obtainable with an effort level that is commensurate with the value of the information received.

Part of the job of information systems professionals is to learn to communicate with end users and understand their problems. It is a creative give-and-take process. In this book, Carolyn Shamlin explains why end users have to be involved in the process of defining software requirements and why their involvment is an ongoing process, not simply an upfront exercise.

One of the most striking developments in the technology of information retrieval has been Executive Information Systems (EIS). This latest edition of *Defining Software Requirements* includes a new chapter on EIS which is based on Ms. Shamlin's experience as an executive with one of the leading vendors in the field.

Executives are a demanding group of users who are becoming increasingly involved in the application of computers as strategic weapons. They have learned that business competes globally, and that systems must become part of a global strategy. It has been said many times that managers make decisions based on incomplete information. This must change and this book provides the guidance for working with users at all levels to develop systems for the future. It should prove valuable to any IS professional who has responsibility for delivering applications and solutions. The concepts are funda-

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mental to getting your money's worth from IS projects and the principles explained herein, if applied competently, will produce greatly improved effectivenss of development efforts.

David Friend
Chairman
Pilot Executive Software

PREFACE

Since the first edition of this book, computers have indeed come out of the information systems back offices and basements. Personal computers have proliferated at all levels in organizations: secretaries use word processors, professionals use spreadsheets, managers use project scheduling systems, and everyone uses electronic mail. Significant technology advances have put powerful computing in the hands of anyone with a few thousand dollars to spend. Where hardware costs and programmer-oriented software once presented substantial barriers to independent computer use, newer-generation software and hardware extend computing power to everyone.

The massive infiltration of personal computers into organizations paved the way for more user-oriented software tools, particularly in the areas of word processing and data analysis. Advances in micro to mainframe links, usage of departmental minicomputers, and availability of electronic mail systems have all contributed to new ways of using technology to increase productivity. We are now experiencing the advent of new standards for software interfacing that will further facilitate the integration of these varied tools, leading to even greater opportunities for gains in productivity.

This second edition includes a new section on the current status of corporate computing directions and how the end user might take advantage of the technnology. This new section, "How to Increase Management Productivity Through Computers," discusses the current trends in end-user computing, including office automation, decision support, and executive information systems (EIS).

Executive Information Systems are directed toward the highest level of management within a company—those who have traditionally shied away from computers. As the baby boom generation, with its increased background in computers, begins to invade the executive

suites of major corporations, computers will play a larger role in the way these executives perform their work, which will in turn have a large impact on the way organizations are run. Some companies are already scratching the surface and discovering that implementing an EIS may indeed modify organizational behavior and the seats of organization power.

PREFACE TO THE FIRST EDITION

This book is for people with primary professional interests in areas other than computers who want to use computers to advantage within their areas of responsibility and expertise. If you are the manager of a corporate or operational function that might benefit from effective use of computing resources, this book provides a framework for analyzing your requirements and communicating them clearly to software developers.

Computer system users may not want—nor should they be required—to burden themselves with the technical details and jargon of the computer industry in order to communicate their requirements effectively to software producers. To assist in this process, this book offers a concise and practical discussion of a comprehensive set of relevant topics written at the consumer (end-user) level.

Software development tools continue to improve and will become increasingly more accessible to the user directly. Users should be aware, however, that although less actual programming will be involved in developing applications in the future, analyzing and defining the application requirements will continue to be necessary.

This book addresses the following subjects:

Part 1: How to use *your* expertise to maximum advantage

Part 2: How to develop system specifications

Part 3: How to control the end results

The methods presented and the issues discussed will be useful for:

- users who must specify their computer system needs and requirements or justify them to upper management, or do both,

- users who are considering the purchase or development of application software,
- users who want to control the factors determining success of software development projects,
- managers or supervisors of functions that might benefit from effective use of computers,
- executives and others who must make decisions concerning computer software investment and resource allocation.

My experience working with users during the last twenty years has convinced me that the single most important factor determining the success of software projects is active involvement of end-user managers and staff who thoroughly understand their system requirements. This book provides end users with a methodology for conducting their own systems analysis, developing a comprehensive system requirement specification, and controlling the end results.

For the things we have to learn before we can do them, we learn by doing them.

—Aristotle

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Part One

HOW TO USE YOUR EXPERTISE TO MAXIMUM ADVANTAGE

We know better the needs of ourselves than of others; to serve oneself is economy of administration.

—Ambrose Bierce
The Devil's Dictionary

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