

# TECHNICAL WRITING FOR TEAMS



IEEE Press  
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Piscataway, NJ 08854

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# TECHNICAL WRITING FOR TEAMS

## The STREAM Tools Handbook

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Alexander Mamishev  
Sean Williams

 **IEEE**  
IEEE PRESS

 **WILEY**

A JOHN WILEY & SONS, INC., PUBLICATION

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Published simultaneously in Canada.

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***Library of Congress Cataloging-in-Publication Data:***

Mamishhev, Alexander, 1971–

Technical writing for teams using STREAM tools / Alexander Mamishhev, Sean Williams.  
p. cm.

ISBN 978-0-470-22976-7 (pbk.)

1. Technical writing. I. Williams, Sean, 1970– II. Title.

T11.M3357 2010

808'.0666—dc22

2009041786

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

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# CONTENTS

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<b>Preface</b>	<b>xiii</b>
<b>Acknowledgments</b>	<b>xvii</b>
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 In This Chapter	1
1.2 Our Audience	2
1.2.1 A Few Horror Stories	2
1.2.2 Some History	4
1.3 The Need for a Good “Writing System”	5
1.4 Introducing <i>STREAM Tools</i>	6
1.4.1 What Is <i>STREAM Tools</i> ?	6
1.4.2 Why Use <i>STREAM Tools</i> ?	8
1.4.3 The Software of <i>STREAM Tools</i>	8
1.4.3.1 Recommended Packages	8
1.4.3.2 A Brief Comparison of Microsoft Word vs. LaTeX: History and Myths	10
1.5 How to Use This Book	13
Exercises	16
<b>2. QUICK START GUIDE FOR <i>STREAM TOOLS</i></b>	<b>17</b>
2.1 In This Chapter	17
2.2 A General Overview of the Writing Process	18
2.3 Introduction to Writing Quality Tools: The <i>STREAM Tools</i> Editorial Mark-up Table	19
2.4 Introduction to Document Design Tools	22
2.4.1 Important Fundamental Concepts	23

2.4.1.1	Step 1: Use Template Files to Create Your New Manuscripts	23
2.4.1.2	Step 2: Copy Existing Elements and Paste Them into a New Location	23
2.4.1.3	Step 3: Edit the Element	24
2.4.1.4	Step 4: Cross-Referencing Elements	25
2.4.2	Creating Elements in a Document	25
2.4.2.1	Headings	26
2.4.2.2	Equations	26
2.4.2.3	Figures	27
2.4.2.4	Tables	28
2.4.2.5	References (Literature Citations)	29
2.5	Introduction to File Management: Optimizing Your Workflow	30
2.5.1	General Principles	30
2.5.2	Using a Wiki for File Management	31
2.5.3	Version Control	32
2.6	Conclusions	34
	Exercises	34

### **3. DOCUMENT DESIGN 35**

3.1	In This Chapter	35
3.2	Creating Templates	36
3.2.1	Headings	36
3.2.1.1	How to Create and Cross-Reference a Heading Template	36
3.2.1.2	How to Alter a Heading Template	37
3.2.1.3	Common Formatting Mistakes in Headings	38
3.2.1.4	Common Stylistic Mistakes for Headings	38
3.2.1.5	Tips and Tricks for Headings	39
3.2.2	Equations	39
3.2.2.1	How to Create and Cross-Reference an Equation Template	39
3.2.2.2	How to Alter an Equation Template	42
3.2.2.3	Common Formatting Mistakes for Equations	43
3.2.2.4	Common Stylistic Mistakes for Equations	44
3.2.2.5	Tips and Tricks for Equations	45
3.2.3	Figures	49

3.2.3.1	How to Create and Cross-Reference a Figure Template	49
3.2.3.2	How to Alter a Figure Template	50
3.2.3.3	Common Formatting Mistakes in Figures	51
3.2.3.4	Common Stylistic Mistakes in Figures	52
3.2.3.5	Tips and Tricks for Figures	54
3.2.4	Tables	56
3.2.4.1	How to Create and Cross-Reference a Table Template	56
3.2.4.2	How to Alter a Table Template	56
3.2.4.3	Common Typesetting Mistakes	57
3.2.4.4	Common Stylistic Mistakes in Tables	57
3.2.4.5	Tips and Tricks for Tables	58
3.2.5	Front Matter	59
3.2.5.1	Controlling Page Numbers	59
3.2.5.2	Table of Contents	60
3.2.6	Back Matter	61
3.2.6.1	Appendices	61
3.2.6.2	Indices	62
3.3	Using Multiple Templates	63
3.3.1	Controlling Styles	64
3.3.2	Switching Between Single-Column and Double-Column Formats	65
3.3.3	Master Documents	66
3.4	Practice Problems	66
3.4.1	Headings	66
3.4.2	Equations	67
3.4.3	Figures	68
3.4.4	Tables	70
3.5	Additional Resources	71
	Exercises	72

## **4. USING BIBLIOGRAPHIC DATABASES** **73**

4.1	In This Chapter	73
4.2	Why Use a Bibliographic Database?	74
4.3	Choice of Software	74
4.4	Using EndNote	75

4.4.1	Setting Up the Interface	75
4.4.2	Adding References	78
4.4.3	Citing References	79
4.5	Sharing a Database	80
4.5.1	Numbering the Database Entries	80
4.5.2	Compatibility with BiBTeX	81
4.6	Formatting References	81
	Exercises	83

## **5. PLANNING, DRAFTING, AND EDITING DOCUMENTS** **85**

5.1	In This Chapter	85
5.2	Definition Stage	87
5.2.1	Select Your Team Members	87
5.2.2	Hold a Kick-off Meeting	88
5.2.3	Analyze the Audience	88
5.2.4	Formulate the Purpose	92
5.2.4.1	Persuasion	92
5.2.4.2	Exposition	92
5.2.4.3	Instruction	92
5.2.5	Select the Optimum Combination of <i>STREAM Tools</i>	94
5.3	Preparation Stage	94
5.3.1	Evaluate Historical Documents	95
5.3.1.1	Journal Articles	96
5.3.1.2	Proceedings/Papers	96
5.3.1.3	Theses and Dissertations	97
5.3.1.4	Proposals	97
5.3.1.5	Reports	99
5.3.2	Populate the File Repository	100
5.3.3	Create a Comprehensive Outline of the Document	101
5.3.3.1	Using Deductive Structures	103
5.3.3.2	Using Microsoft Word's Outline Feature	104
5.3.4	Populate All Sections with "Yellow Text"	106
5.3.5	Distribute Writing Tasks Among Team Members	107
5.3.5.1	Choose a Drafting Strategy	107
5.3.5.2	Synchronize Writing Styles	112
5.4	Writing Stage	116



5.4.1	Enter Content	116
5.4.1.1	Legacy Content	116
5.4.1.2	New Content	117
5.4.1.3	Control Versions of Shared Files	118
5.4.2	Request that Team Members Submit Their Drafts	119
5.4.3	Verify that Each Section Is Headed in the Right Direction	119
5.4.4	Construct the Whole Document	120
5.4.5	Revise for Content and Distribute Additional Writing Tasks	121
5.4.5.1	Comprehensive Editing	121
5.4.5.2	<i>STREAM Tools</i> Editorial Mark-up Table (STEM Table)	122
5.4.5.3	Strategies for Editing Electronic Copy Using Microsoft Word—An Overview of Microsoft Word’s Commenting, Reviewing, and Proofing Features	125
5.4.6	Distribute Additional Writing Tasks	127
5.5	Completion Stage	128
5.5.1	Copyedit the Document	128
5.5.2	Send Out for a Final Review of Content and Clarity	129
5.5.3	Proofread the Document	131
5.5.4	Submit the Document	133
5.5.5	Conduct the Final Process-Improvement Review Session	135
	Exercises	136
	Additional Resources	136

## **6. BUILDING HIGH-QUALITY WRITING TEAMS** **137**

6.1	In This Chapter	137
6.2	Understanding the Benefits and Challenges of Teamwork	138
6.2.1	The Payoff of Teamwork	139
6.2.2	Some Principle Challenges of Teamwork	140
6.2.2.1	Challenge 1: Poor Match of Member Skills to Task Requirements	141
6.2.2.2	Challenge 2: Competing Member Goals	141
6.2.2.3	Challenge 3: Too Much Focus on the Social Aspects of the Team	142
6.2.2.4	Challenge 4: No Accountability to the Team or Too Much Reliance on the Team	142
6.3	Identifying Team Goals and Assigning Member Roles	143

6.3.1 Define Roles and Procedures Clearly	143
6.3.1.1 Define Team Roles	144
6.3.1.2 Define Team Procedures	145
6.4 Managing Teamwork at a Distance	148
6.4.1 Building Trust in Virtual Teams	148
6.4.1.1 Swift Trust	149
6.4.1.2 Social Information Processing Theory	149
6.4.2 Demonstrating Sensitivity to Cultural Differences	150
6.5 Selecting Communication Tools to Support Teamwork	152
6.5.1 Wikis	152
6.5.1.1 Creating a Wiki	153
6.5.1.2 Editing	153
6.5.1.3 Organizing	153
6.5.1.4 Monitoring Edits	153
6.5.1.5 Other Suggestions for Wiki Use	154
6.5.2 SharePoint	154
6.5.2.1 Lists	154
6.5.2.2 Web Pages	157
6.5.2.3 Alerts and Site Management	158
Exercises	159
Additional Resources	159

## **7. ASSURING QUALITY WRITING** **161**

7.1 In This Chapter	161
7.2 Choosing the Best Words	162
7.2.1 Choose Strong Words	162
7.2.1.1 Use Strong Nouns and Verbs	162
7.2.1.2 Choose Words with the Right Level of Formality	163
7.2.2 Avoid Weak Words	164
7.2.2.1 Check for Confusing or Frequently Misused Words	164
7.2.2.2 Avoid Double Negatives, and Change Negatives to Affirmatives	165
7.2.2.3 Avoid Changing Verbs to Nouns	166
7.2.2.4 Delete Meaningless Words and Modifiers	167
7.2.2.5 Avoid Jargon	167
7.2.2.6 Avoid Sexist or Discriminatory Language	168
7.3 Writing Strong Sentences	168

7.3.1 Write Economically	169
7.3.2 Include a Variety of Sentence Types	170
7.4 Avoiding Weak Sentence Construction	170
7.4.1.1 Comma Splices	171
7.4.1.2 Fragments	171
7.4.1.3 Fused or Run-on Sentences	171
7.4.1.4 Misplaced, Dangling, or Two-way Modifiers	172
7.4.1.5 Faulty Parallelism	173
7.5 Punctuating for Clarity	173
7.5.1 End Punctuation	174
7.5.1.1 Periods	174
7.5.1.2 Question Marks	174
7.5.1.3 Exclamation Points	174
7.5.2 Commas	175
7.5.3 Semicolons	175
7.5.4 Colons	176
7.5.5 Apostrophes	176
7.5.6 Dashes and Hyphens	177
7.6 Final Considerations	177
7.6.1 Abbreviations and Acronyms	178
7.6.2 Capitalization	178
7.6.3 Numbers	178
7.6.4 Dates	179
7.6.5 Fractions and Percentages	179
7.6.6 Units of Measure	179
7.7 A Final Note on Grammar	180
Additional Resources	180

## **8. CONCLUDING REMARKS**

**181**

8.1 In This Chapter	181
8.2 Business Case	182
8.3 Frequently Asked Questions	185
8.4 Success Stories	186
8.5 Additional Reading	187
8.5.1 Useful Books and Articles	188
8.5.2 Useful Weblinks	188
Exercises	189

APPENDIX A	FILE TEMPLATE FOR A SHORT SINGLE-COLUMN REPORT OR PAPER	191
APPENDIX B	FILE TEMPLATE FOR A DOUBLE-COLUMN PAPER	197
APPENDIX C	FILE TEMPLATE FOR A THESIS, BOOK, OR LONG REPORT	205
APPENDIX D	IEEE TEMPLATE WITH <i>STREAM TOOLS</i> ENABLED	223
APPENDIX E	POWERPOINT SLIDES FOR TEACHING <i>STREAM TOOLS</i> BASICS IN 30 MINUTES	231
APPENDIX F	TEN COMMANDMENTS OF <i>STREAM TOOLS</i>	235
INDEX		237

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# PREFACE

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Business processes change continuously, becoming increasingly automated, especially in such areas as customer interaction, order handling, and marketing. Collaborative teams are now formed across continents, and everyone—from individuals to small businesses to global corporations—has to operate in this increasingly interconnected world to maintain their competitiveness. The field of research and development is no exception: the processes of producing and managing knowledge change as new information technology tools become available. One of these processes, the production of manuscripts—journal articles, conference papers, technical reports—is one of the most important activities in scientific and technical organizations and this process, too, has become highly automated.

Recognizing these changes, our goal for this book is to provide technical teams with tools that allow them to streamline their collaborative writing activities. Ultimately, this approach will not only increase the overall productivity of the group but will also enhance the quality of the output, the creativity in the organization, and the ability of team members to interact with each other.

In this book, we cover several key areas of manuscript generation: writing, editing, proofreading, formatting, and file management. Unlike most other writing manuals, we place specific emphasis on teams rather than on individual writers. Therefore, we address such areas as team dynamics, training, separation of duties, and workflow, while also focusing on the tools that will help team members collaborate more successfully.

One example of a team centered approach is the way we tackle writing quality. Becoming a great technical writer is a lifelong process. The rewards of writing well are great: winning large technical bidding contracts, getting your work published in highly respected journals, rapidly developing and protecting your intellectual property. With all due respect to many who have preceded us, like Strunk and White, we feel that today we have an opportunity to improve writing by focusing attention on specific areas that need improvement rather than discussing writing *in general*.

*In short, this book presents a system that enables collaborative authors to unlock the potential of teams in creating the highest quality documents in a minimum amount of time.*

Chapter 1 introduces the philosophy behind this book by examining the need for the system we present in subsequent chapters. The chapter offers a historical account of how our perspective has evolved, discusses why writing teams need a good “writing system,” and introduces the system itself. This chapter does not teach any skills, so your team can scan it quickly or even skip it entirely if you want to move directly into an outline of the system, which we present in Chapter 2.

We have dubbed the collection of approaches in this manual *STREAM Tools*, which stands for **S**cientific and **T**echnical **w**Riting, **E**ding, and file **M**anagement. In addition, we developed a “minimum subset” version of *STREAM Tools* to meet the needs of busy collaborators who do not have the time or desire to learn the entire system. The manual you are reading is the current embodiment of *STREAM Tools*, a system that continues to grow and evolve as more groups begin to use the system.

There are two options in learning *STREAM Tools*: one for experienced writers and the other for the beginners. Experienced writers already know how equations should look and why a figure caption should be on the same page as the figure itself. These experienced writers can learn the basics of *STREAM Tools* in a quick 30-minute overview and will then be ready to co-author manuscripts with their colleagues using the system. Chapter 2 presents the shortest possible introduction to *STREAM Tools* by providing the minimum set of instructions that ensure reasonable compatibility among multiple writers.

Newer authors, as well as more experienced authors with little experience in collaborative writing, should consider reading Chapter 3, which integrates the document management advice specific to Microsoft Word with a general tutorial for achieving consistent formatting in your documents. This chapter outlines how different elements of a manuscript—such as figures, tables, or equations—should be managed and why a particular way of managing the elements will produce effective documents. The list of the most typical mistakes made by previous generations of beginners is included. Finally, Chapter 3 contains a collection of advanced tips and tricks at the end of each section to help experienced authors work even more efficiently.

Chapter 4 addresses how collaborators can integrate bibliographic databases into their projects. As writing teams conduct their research and develop their projects, inevitably they construct a large database of sources. This chapter outlines a method both for compiling these databases and also general procedures for drawing on the database as the team constructs its documents.

Chapters 5, 6, and 7 take a step back from the “Quick Start” approach and offer more detailed guidance on issues confronting writing teams. Chapter 5 presents a system for planning, drafting, and editing documents, which, in a way, provides the container for the entire system of *STREAM Tools* outlined in this book. For example, Chapter 5 discusses important concerns such as analyzing audiences, organizing content and naming files, and annotating documents using electronic editing tools. Guidelines and checklists for each of these stages of collaboration accompany the discussion so that teams can be sure they are operating as efficiently as possible.

Chapter 6 presents a detailed discussion of what components are necessary for successful writing teams. Like Chapter 5, this chapter contains multiple subtopics such as understanding how teams work, how to manage the work of teams, and how to work successfully at a distance. While experienced collaborative authors will have had some experience with these principles, we encourage all readers to review this chapter since it explicitly articulates a series of approaches that most authors have only intuitively learned. Most importantly, this chapter outlines a series of questions and methods for managing teams to maximize their effectiveness, and each set of concerns is accompanied by checklists and guidelines that serve as a quick reference guide for busy teams.

Most writers will find Chapter 7 to be a good review of quality writing. This chapter presents some of the most common challenges faced by technical writing teams and gives examples of these challenges. This chapter addresses the mechanics of writing, such as constructing strong sentences, choosing the best words, and punctuating for clarity. While the content of this chapter might seem like adornment when compared to the “real” work of writing, efficient writing processes must attempt to get things right the first time to avoid rewriting (at best) or confusion among co-authors (at worst).

Chapter 8, the final chapter, presents a business case for using *STREAM Tools* and addresses “frequently asked questions.” The chapter also includes some success stories about *STREAM Tools* that supplement the business case and demonstrate why the method can be so valuable for writing teams.

Our overarching purpose is to enable your team to begin writing quickly, efficiently, and with high quality, so we do not present extensive resources, references, and exercises throughout the book. Instead, we present many “take away documents” to help facilitate your process—checklists and guidelines that can be used separately from the book itself—as well as including a list of resources in most chapters so that interested readers can study these materials if they have time.

Finally, we invite you to visit the website that accompanies this book for additional information and to join the growing community of users already successfully collaborating using *STREAM Tools*. The central satellite website is [streamtoolsonline.com](http://streamtoolsonline.com). From there you can follow web links to additional websites.

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# ACKNOWLEDGMENTS

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We would like to thank many individuals for their participation in various stages of this project. First, we would like to thank our families for their patience and understanding.

We would like to thank Professors David Farkas of the University of Washington and Kelli Cargile Cook of Texas Tech University for their constructive feedback at the early stages of this project, as well as Professors Kirk St. Amant and Mark Haselkorn for their assistance in working with the IEEE Professional Communications Society.

We also would like to thank our students, those who were among the first to try and then help refine various collaborative writing techniques described here, and those who helped us conceive of the content that appears throughout. In particular, we would like to thank Julia Arp, Jill Bunch, Sarah Hershman, Kathy Jeep, Amy Jessee, Bing Jiang, Nels Jewell-Larsen, Xiaobei Lee, Jessica Lisenby, Matthew Nelson, Chih-Hsu Peng, Gabriel Rowe, Pamela Saunders, Meagan Schuver, Kishore Sundara-Rajan, Amanda White, Brian Verhoeven, Min Wang, Kenneth Yuen, and Aaron Zielinski.

Our thanks also go to the IEEE Press staff: Cathy Faduska, senior acquisitions editor who helped formulate this project; Steve Welch, acquisitions editor who patiently worked with us as we defined our team and roles; and Jeanne Audino, project manager, who supervised the project through completion stages.