TECHNICAL WRITING FOR TEAMS

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The STREAM Tools Handbook

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PREFACE

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**R**iting, **E**diting, 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. From there you can follow web links to additional websites.

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