2

QUICK START GUIDE FOR *STREAM TOOLS*

Colette: No. Follow the recipe.
Linguini: But you just said that …
Colette: [interrupts] No, no, no. It was his job to be unexpected. It is our job to follow the recipe.

—Ratatouille (2007)

2.1 IN THIS CHAPTER

Consider this chapter to be "*STREAM Tools* 101." Essentially, this chapter provides a basic overview of the practices that are necessary for a novice to begin interacting productively with other users of *STREAM Tools*. The primary intent of this chapter, then, is to provide introductory instruction for novices to quickly grasp the *STREAM Tools* method and therefore begin collaborating immediately with more experienced colleagues.

Since this chapter is a quick start guide for new *STREAM Tools* users, we do not expect your team to read it sequentially. We have organized this chapter into modules,

Technical Writing for Teams: The STREAM Tools Handbook, by Alexander Mamishev and Sean Williams

so that you can read each section as a stand-alone unit that outlines a particular component of *STREAM Tools*. Depending upon which component you or your team leader feels is most important to learn immediately, you can begin with that section.

Following a general overview of the writing process, this chapter's modules—or sections—parallel the introduction to *STREAM Tools* presented in the previous chapter.

To learn: the most crucial element of the writing quality tools, particularly the table that will enable your team to begin immediately editing and providing quality feedback on versions of your documents,

Skip to: *Section 2.3. Introduction to Writing Quality Tools: The STREAM Tools Editorial Mark-up Table.*

To learn: the process for using templates, autotext, and cross-referencing to design elements in documents including headings, equations, figures, and tables,

Skip to: *Section 2.4. Introduction to Document Design Tools.* Learning these tools will ensure that your team can produce consistently formatted documents with minimum effort.

To learn: the methods for ensuring that team members work on the most current versions of documents, do not "leap frog" content, and always have access to the content they need,

Skip to: *Section 2.5. Introduction to File Management: Optimizing Your Workflow*.

Since this chapter is a "Quick Start Guide," it omits all discussions of why things are done a certain way, any possible exceptions, and all possible differences in writing styles among disciplines and individuals. If you have a good reason to depart from the techniques suggested in this chapter, you can do so, as long as you understand the effect of your deviations and coordinate with your co-authors. In general, though, we recommend sticking with the systems outlined in this chapter until you become closely familiar with *STREAM Tools*.

2.2 A GENERAL OVERVIEW OF THE WRITING PROCESS

STREAM Tools represents a systematic way of moving through the writing process that ensures quality content and attractive documents by employing efficient processes. In order for *STREAM Tools* to be the most effective for your team, it helps to understand a bit about the writing process as a whole. *STREAM Tools* seeks to enable and automate parts of the writing process, but it does not substitute for the process itself, which generally follows the stages below:

1. ***The Definition Stage.*** This stage marks the beginning of the document creation process where the team outlines initial plans for the project. This stage includes, for example, holding a kick-off meeting to analyze the audience, formulating the purpose, and selecting the right combination of *STREAM Tools*. The *STREAM Tools* components dedicated to this activity are fully articulated in Section 5.2.

2. ***The Preparation Stage.*** This stage marks the initial developments and skeleton of a document and assigns responsibility for actual writing. This stage includes, for example, evaluating historical documents, creating a file repository, drafting an outline of the document, and assigning writing tasks to the team members. The *STREAM Tools* components dedicated to this activity are fully articulated in Section 5.3.
3. ***The Writing Stage.*** This stage marks the team's actual writing work as they draft sections, combine them, and revise. This stage includes, for example, entering legacy content, requesting that team members submit staged drafts, verifying that the document is moving in the right direction, compiling the whole document, and revising for content. The *STREAM Tools* components dedicated to this activity are fully articulated in Section 5.4.
4. ***The Completion Stage.*** This stage marks the end of the writing process where the team confirms that it has met the goals outlined in the early stages of the process and then submits the final document. This stage includes, for example, copyediting, soliciting external reviews, final submission, and analyzing the whole document development process. The *STREAM Tools* components dedicated to this activity are fully articulated in Section 5.5.

There are, of course, entire books published on the writing process and effectively moving through its stages. Different components of *STREAM Tools* facilitate the writing process, but these tools do not replace the well-designed writing process that skilled writers employ. *STREAM Tools* simply helps those writers do their work better.

2.3 INTRODUCTION TO WRITING QUALITY TOOLS: THE *STREAM TOOLS* EDITORIAL MARK-UP TABLE

Producing writing in multiple passes, where you cycle back through your work over and over again, constantly revising and improving—creating what are called "iterations" of a text—is essential for producing quality writing. If adopting an iterative approach is a key for individual writing, then employing an iterative strategy for group writing is absolutely necessary. Do not try to write the perfect document on the first attempt, and do not try to make all corrections after the first pass. Assuming your team can do either one of these things will produce frustration at best and poor documents and hard feelings at worst.

Therefore, we recommend that you sequence your editing tasks:

1. Read for content, while leaving a few occasional comments, like "c:\glob," in the initial paragraphs (the "c:\glob" mark and other basic editing comments from the *STREAM Tools* Editorial Mark-up Table appear in Table 2.1).
2. Shift from content to form, starting to address such issues as grammar, style, or appearance, leaving comments such as c:\casual.
3. Prepare your document for final distribution by carefully proofreading after your team has dealt with other editing issues.

TABLE 2.1. The Essential *STREAM Tools* Editorial Mark-up Table (STEM Table)

Comment	Abbreviation Deciphered	Meaning	Section in This Book	Page Numbers
c:	Comment	This is not a replacement text but rather a comment.	Self-explanatory	88
c: \AA	Analyze the audience	The document does not address the right audience.	5.2.3	22
c:\auto	Autonumbering	Implement autonumbering features.	2.4	162, 168, 170
c:\awk	Awkward	Sentence is awkward. Possibly word sequence, word selection, or sentence structure need to be changed.	7.2; 7.3; 7.4	162
c: \casual	Casual wording	The wording is too casual. People may talk like that, but this wording is not suitable for formal writing.	7.2	162, 85
c:\colloq	Colloquial	A colloquial expression. People talk like that, but they do not write like that	7.2; Chapter 5	107, 161
c:\EOI	End of iteration	The manuscript contains too many errors or, perhaps, the editor ran out of time. The editor stopped at the EOI point and expects the writer to learn from previous mistakes, apply them to the entire body of the manuscript, and bring it back for the next iteration.	5.3.5.1; Chapter 7	
c:\glob	Global change	A request to correct this type of a problem throughout the document. This comment is to be used in combination with other comments, when the same type of mistake occurs multiple times and the editor does not want to correct it every time.	Self-explanatory	
c:\gram	Grammatical error	A catch-all comment for grammatical errors.	Chapter 7	161
c:\model	Model document	Do you have a good model document after which current manuscript is structured?	5.3.1	95

TABLE 2.1. *Continued*

Comment	Abbreviation Deciphered	Meaning	Section in This Book	Page Numbers
c: \purp	Purpose	The purpose of this part of the document is not clear. Should it be persuasion, exposition, or instruction?	5.2.4	92
c: \pw	Poor wording	The sentence is poorly worded.	7.2	162
c: \pwt	Problems with terminology	Poor selection of terminology, could be confusing, misleading, or just plain incorrect	7.2.2.5	167
c: \rep	Repetition	Repetitive use of the same word or root	Self-explanatory	
c: \sp	Spelling	Incorrect spelling	Self-explanatory	
c:\struc	Structure	The document lacks proper structure.	5.3.3	101
c:\STH x.x	Writing for Research Teams	Read section x.x (for example, section 5.2) from this book, *Technical Writing for Teams: The STREAM Tools Handbook.*	Self-explanatory	
Written with a pencil	Regular comment	Changes can be made without a discussion.	Self-explanatory	
Written with a red pen	Talk to the reviewer about it	Usually, a complex subject nature that Requires a discussion	Self-explanatory	

These recommendations represent only the most elemental steps in the process of ensuring writing quality. The full discussion of ensuring writing quality tools appears in Chapter 5, and the editing process in particular appears in sections 5.4 and 5.5.

One key feature of *STREAM Tools* is what we call the *STREAM Tools* Editorial Mark-up Table, or *STEM* Table. The STEM Table is a great time saver. For a writing team just becoming familiar with the system, the STEM Table enables reviewers to provide quality feedback in a short amount of time while informing novice writers of exactly which topics they need to improve. The STEM Table also enables reviewers to

provide consistent feedback because this tool utilizes a series of standardized marks as shorthand for common problems found in collaborative documents. In short, the STEM Table directs writers to problems in the manuscript, sometimes offering correction suggestions but more frequently identifying problems that the writers can then repair.

> ***STREAM Tools* Commandment #2:**
> Your boss is not your English teacher.

In Table 2.1, we present the basic version of the STEM Table, which includes the most frequent and useful entries. Granted, for a while, your team will have to refer to the symbols in the table until they immediately recognize the shorthand. However, once your team develops skill with using these symbols as they move through the editing process, your team will produce iterations of documents both more rapidly and with higher quality.

The STEM Table has two major purposes: to present those who review manuscripts with a set of shorthand comments that will speed up their feedback, and to present the writers of manuscripts with a resource that explains the comments on their writing. While we were in school—and English classes in particular—our instructors provided complex feedback in the margins or at the end of documents. However, in workplace writing, reviewers seldom have the time to provide extensive explanations for their commentary and, really, teaching is not the primary purpose of the feedback. When we review in workplace contexts, the main purpose is to improve the document, not necessarily the writer. The STEM Table enables both of these purposes to coexist—teaching and improving documents—because the commenting codes point out significant problems in a text *and* refer writers to an explanation of that commentary.

The commenting codes also cover a variety of concerns not addressed in standard notation symbols and these extend the opportunity for improving the document and coaching writers. For example, in standard editorial mark-up, no symbol exists for "Analyze the Audience", even though this particular concern represents one of the most significant potential issues with a document's effectiveness. Within the *STREAM Tools* Editorial Mark-up table, though, this and other significant issues carry a commenting code that reviewers can note quickly and that points writers to the part of this book that further explains that concept. In comparison to standard editorial text *or* standard instructional feedback, the STEM Table enables both quick review *and* coaching, improving on other types of editorial feedback in the workplace.

2.4 INTRODUCTION TO DOCUMENT DESIGN TOOLS

The document design components of *STREAM Tools* evolved from a consistent set of concepts. Each of these concepts, discussed in Section 2.4.1, enables writers to create document design elements such as headings, equations, figures, and tables. Each of these concepts reappears in the individual Quick Start instructions for creating elements in a document that begin in Section 2.4.2.1. Some readers might find it most useful to skip right to those instructions that begin in Section 2.4.2.1, but others might find it

helpful to see the big picture first, which we present in Section 2.4.1. These instructions are written for Microsoft Word 2007. Other versions of Microsoft Word are very similar in their functionality, but the path to the menu selection buttons may be slightly different.

2.4.1 Important Fundamental Concepts

STREAM Tools typesetting rules, in their barebones form, can be reduced to four fundamental concepts or practices:

1. *Step 1.* Use template files to create your new manuscripts.
2. *Step 2.* Copy existing elements—headings, equations, figures, tables, and references—and paste the copy into a new location in the document to create a new element that maintains automatic numbering.
3. *Step 3.* Edit the element.
4. *Step 4.* Cross-reference elements, especially equations, figures, tables, and references to ensure they update automatically.

These practices apply across the entire system, regardless of the particular type of document or place in the document, and so they are worth explaining in a bit more detail. With just these fundamentals, you can begin experimenting with *STREAM Tools*.

2.4.1.1 Step 1: Use Template Files to Create Your New Manuscripts. If you plan to write a complex document, we highly recommended that you use a template file as the starting point rather than beginning with a blank document. A template file already has the settings and tools necessary for the time efficient development of a manuscript, which means that your team will not need to recreate formatting items such as heading styles. *STREAM Tools* employs three basic template files that are available at the project's website, streamtoolsonline.com, and other template files can be derived from the basic ones.

> ***STREAM Tools* Commandment #3:**
> Use document templates.

Review Table 2.2, "Templates Available for *STREAM Tools*," to determine which template is appropriate for your situation, then download the template most appropriate for your project and begin using it to create your new document.

By altering these basic templates, writers can create new, derived templates that not only possess all the qualities of a *STREAM Tools* template but also meet the requirements of a specific publisher or agency. Chapter 3 discusses this option in detail and provides examples.

2.4.1.2 Step 2: Copy Existing Elements and Paste Them into a New Location. It might seem strange to copy an existing element such as a heading, equation, or figure to create a new one, but fortunately, the *STREAM Tools* templates make

TABLE 2.2. Templates Available for *STREAM Tools*

Filename	Description
BasicTemplateSingleColumn.doc	A single-column template for short reports and papers, typically up to 20 or 30 pages.
BasicTemplateDoubleColumn.doc	A double-column template for camera-ready double-column papers, typically up to 10 pages.
BasicThesisOrBookTemplate.doc	A single-column template for long manuscripts, such as theses, books, or long reports. Main differences from the other two templates are: — Chapter number is included in the numbers of figures, tables, and equations (e.g., *Figure3.5* rather than *Figure 15*). — Templates for the front matter (preface, table of contents, etc.) and the back matter (appendices, index, etc.) are included.

it very easy to create a new element from an existing one. If you copy existing elements and then paste the copy into a new location, this maintains the "auto-numbering" of the element so that every time somebody adds an element such as a new heading, the entire document automatically updates all the numbers of each element.

***STREAM Tools* Commandment #4:**
Use automatic formatting features.

Procedurally it looks like this:

1. Copy and paste the existing element to a new location (e.g., copy an existing figure and its caption, then paste the copy into a new location in the document).
2. Type new text into the placeholder copy (e.g., type in the new caption for a figure. *NOTE: Do NOT type over the automatic caption number*).
3. Press **Ctrl-A and then F9** to update the numbering (e.g., the numbering of figure captions).

You should notice that the number attached to your element has now been updated to reflect its sequence in the document. For example, if you copy Figure 1.1 into Chapter 3 of your document, and the new figure is the second figure in that chapter, it will now be numbered Figure 3.2.

2.4.1.3 Step 3: Edit the Element. The last stage of the general process is actually editing the elements. Recall that to create new elements, you copy a prior instance and then paste that copy into a new location in the document. This process leaves you with a duplicate of a prior element so the new element still needs to be edited.

Consider a heading, for example, which is the easiest element to create and alter. If you wanted to insert a "Step 4" heading, you would copy the "Step 3" heading above, and then paste the copy somewhere later. That would give you the new heading of "2.4.1.4 Step 3: Edit the element." Notice that the number of the heading has updated but the text has not. Therefore, you select the text of the heading, add some text like "Step 4: New Step" and then update the entire document by pressing **Ctrl-A and then F9.**

Conceptually, all elements work the same way: you copy an instance, paste it into a new location, and then edit that particular instance. Obviously, editing tables and figures will be more complicated because each of these has additional steps for ensuring the quality of the table or figure itself, but in principle, the process remains exactly the same: **copy → paste → edit → update.**

2.4.1.4 Step 4: Cross-Referencing Elements. The final step in the process is to ensure that the numbering attached to elements updates automatically by adding cross-references. Imagine cross-referencing as asking Microsoft Word to remember that a particular element, like a figure's caption and number, is attached to a particular piece of text in the body. In other words, when you cross-reference the title and number of a figure with a reference to the figure in the body of the manuscript, Microsoft Word reads both references as one unit. When one changes, the items linked to the one you changed will update as well. For example, we could insert a cross-reference here and it would look identical to the heading text above: "Step 4: Cross-Referencing Elements."

And if, for some reason, the title of the heading changed to something like "Step 4: Linking Elements," the in-text reference would change to read exactly the same way—automatically when you update the document by pressing **Ctrl-A and then F9.** If this sounds a bit confusing, don't worry. In Section 2.4, we discuss the process for adding cross-references to elements (as well as the other steps in the process) and once you've done it once, you'll see how simple this is—and how much time it will save you! Now the complete process looks like this: **copy → paste → edit → update → cross-reference**.

2.4.2 Creating Elements in a Document

So far we have outlined the general concepts and processes used for *STREAM Tools*. In this section, we'd like to put you to work actually creating elements in a document. Each of the sections below describes the complete process for each of a document's major elements, moving from **copying** an old element, **pasting** it at new location, **editing** the element, **updating** the document to reflect new element numbering, and finally adding **cross-references** to the element as they are needed.

Note: Occasionally, formatting is not successful when you update your document after following steps 1–4. If this happens, try turning on Microsoft Word's "Formatting" view by clicking the paragraph symbol: ¶. This view uncovers hidden formatting commands in Microsoft Word. From this view, confirm that you have selected all appropriate formatting elements, including those just before and just after the element you copied.

2.4.2.1 Headings

To create a new heading element:
1. Copy an existing heading, *including* the line before the heading (otherwise you would be copying only the text, but not the style for this line).
2. Paste the heading at the new desired location.

To edit a new heading:
1. Replace the heading text as desired, but do not touch the heading number.

To cross-reference a heading:
1. Identify a place in the text where you'd like to refer to the heading.
2. Click **Insert** → **Cross-Reference**.
3. Select **Heading** in the *Reference Type* dialogue box.
4. Choose **Heading Number** Under **Insert Reference To**.
5. Uncheck **Insert as Hyperlink** and uncheck **Include above/below**.
6. Click **Insert**.

Now you'll see the heading number in the text where you placed your cursor in Step 1. Depending upon which type of reference suits your text best, you might also choose to include a cross-reference to the text of the heading as well. In this case, simply repeat the process above and then select **Heading Text** in the **Insert Reference To** box. To update your text, press **Ctrl-A** to select the entire text and then press **F9** to complete the update.

Note: The path within the menu differs slightly in different versions of Microsoft Word. This manuscript does not attempt to list minor differences in Microsoft Word menus. For example:
Microsoft Word 2003 sequence: **Insert** → **Reference** → **Cross-Reference** → **Heading;**
Microsoft Word 2007 sequence: **Insert** → **Cross-Reference** → **Heading.**

2.4.2.2 Equations

To create a new equation element:
1. Copy the entire line of the equation template.
2. Paste it to the new location.

To edit a new equation:
1. Double-click on the equation itself to edit it.
2. To cross-reference an equation, you must first create a bookmark.

Often, the equation editor in Microsoft Word will be inadequate to edit your equations; if this is the case, then we recommend using MathType as your equation editor. This more complicated process is described in Chapter 3.

To cross-reference an equation:

Creating a cross-reference for a new equation actually requires two separate stages. First, you have to create a bookmark for the equation, basically giving it a unique name and identifier. Then, you insert the cross reference to that bookmark (the unique identifier).

Stage 1: Create a bookmark:

1. Select the equation number on the right in the equation line.
2. Click **Insert → Bookmark.**
3. Give this bookmark a short descriptive name that starts with "eq," for example, eqNewtonsFirstLaw.

Stage 2: Cross-reference the equation using the bookmark:

1. Click **Insert → Cross-Reference**.
2. Under **Reference Type** click **Bookmark.**
3. Uncheck **Insert as Hyperlink**, unless you have a strong reason to have a hyperlink in your document.
4. Under **Insert Reference To** click **Bookmark Text**.
5. Pick the desired bookmark from the list and click **Insert**.

To update the equation press **Ctrl-A** and then **F9** and be sure to save your document as well.

2.4.2.3 Figures. In Microsoft Word, a figure graphic or picture is a separate object from a figure caption. The automatic numbering applies to captions, and the graphics are just objects that happen to be next to captions. Be sure that you keep specific graphics and their corresponding captions together because each figure really is the combination of the figure itself *and* the caption.

To make a new figure element:

1. Copy an existing graphic and the corresponding caption.
2. Paste them into a new desired location.

To edit the new figure:

Because each figure consists of two parts, the graphic and the caption, editing likewise requires that you edit each of the two parts. Therefore, editing the new figure occurs in two stages.

Stage 1: Editing the graphical element:

1. Delete the old graphic in the new location and paste a new graphic in its place. *(Note: For maximum compatibility between versions and writers, do not use*

***Paste**. Instead, click **Home** → **Paste Special** → **Picture**).* (There are exceptions to this rule, which you will discover when your figures start looking distorted.)

2. Right-click on the graphic to select it.
3. Click **Edit** → **Format Picture** → **Layout** → **In line with text** to properly align the graphic.
4. Adjust the graphic's size and centering as desired.
5. Click **OK**.

This process assumes that your graphic has been created and is ready to be inserted. Chapter 3 describes the full process of editing high quality graphics.

Stage 2: Editing the caption:

1. Delete the text of the prior caption.
2. Type the new text.

Note: Remember to preserve the figure number, because this is auto-text. For example, in the caption, "Figure 14. Experimental setup," you can replace the words "Experimental setup." Do not type in the field "Figure 14." The number will update automatically.

To cross-reference a figure:

1. Click **Insert** → **Cross-Reference**.
2. Under **Reference Type** click **Figure**.
3. Uncheck **Insert as Hyperlink**.
4. Under **Insert Reference To** click **Only Label and Number**.
5. Pick the desired figure from the list.
6. Click Insert.

To update the document with the numbering for the figure, press **Ctrl-A** and then **F9**, making sure to save your document after doing so.

2.4.2.4 Tables. The process for creating, editing, and cross-referencing tables is identical to that of figures. As far as Microsoft Word is concerned, the table itself is equivalent to a graphic since the table itself exists independently from the caption. One slight formatting difference is that table captions should appear *on top* of the table rather than below it, as in the case of a figure. That is, tables are labeled on top; figures are labeled on the bottom. The process below parallels that for a figure.

To make a new table element:

1. Copy an existing table and the table's caption
2. Paste them into a new desired location.

To edit the new table:

Because each table consists of two parts, the table array and the caption, editing likewise requires that you edit each of the two parts. Therefore, editing the new table occurs in two stages.

Stage 1: Inserting the table:

1. Delete the old table in the new location and paste a new table in its place.

or

1. Create a new table by selecting **Insert** → **Table** → **Insert Table** and then indicate how many columns and rows you'd like your table to contain.
2. Click **OK**.

Stage 2: Editing the caption:

1. Delete the text of the prior caption.
2. Type the new text.

Note: Remember to preserve the table number, because this is auto-text. For example, in the caption,"Table 14. Experimental setup," replace the words "Experimental setup." Do not type in the field "Table 14." The number will update automatically.

To cross-reference a table:

1. Click **Insert** → **Cross-Reference**.
2. Under **Reference Type** click table.
3. Uncheck **Insert as Hyperlink**.
4. Under **Insert Reference To** click **Only Label and Number**.
5. Pick the desired table from the list.
6. Click **Insert**.

To update the document with the numbering for the figure, press **Ctrl-A** and then **F9**, and be sure to save your document as well.

2.4.2.5 References (Literature Citations). Although Microsoft Word has built-in tools for automatic numbering and cross-referencing of literature citations, they are only suitable for small projects. For extensive group writing, it is highly advisable to equip everyone with a dedicated software package for this purpose. Two leading packages are EndNote and Reference Manager. Both programs are very similar, with a few differences.

If you are a novice in a group that already uses EndNote, follow the procedures below. These steps represent just an outline of possibilities, and you might need to reference the software manual or an experienced user to accomplish these steps.

1. Open the Microsoft Word file.
2. Make sure that the EndNote toolbar is visible.

3. Place the cursor at the location where you want to enter the reference.
4. Click on **Go To EndNote** to bring up the database software.
5. Search the Internet databases for references of your interest.
6. Enter these references into the group database.
7. Select references by clicking the corresponding checkbox.
8. Click on **Return To Word Processor.**
9. Click on **Insert Citation/Insert Selected Citation(s)**. The reference to your entry will appear in the text, and the literature citation itself will be at the end of the document.
10. Click on **Style** to select output style.
11. Click on **Update Citations and Bibliography** to update the list of references.

The reference to your entry will appear in the text, and the literature citation itself will be at the end of the document. Chapter 4 provides a more detailed discussion of bibliographic database management.

2.5 INTRODUCTION TO FILE MANAGEMENT: OPTIMIZING YOUR WORKFLOW

2.5.1 General Principles

By definition, when a team produces a document, there are numerous contributors. Pieces of the document fly back and forth as information is recycled, exchanged, and created depending on the document and the stage in the process. Mastering the process of building new manuscripts with multiple remote contributors is one of the most important elements of successful technical and scientific writing in organizations. In fact, this book itself demonstrates this claim since the authors created the entire book from locations separated by 3,000 miles!

> ***STREAM Tools* Commandment #5:**
> Use modern communication tools.

Many modern organizations already have discovered that they need to move past email as a method for exchanging files and have implemented shared drives on a network, retail products like SharePoint, proprietary groupware, or systems readily available on the Internet like Google Docs and wikis. Shared drives and SharePoint are typically provided by the information technology department of the organization and work well when every team member has immediate access to them. For teams from multiple organizations, wikis and Google Docs often work much better, because they can be set up in a matter of minutes and can be accessed by anyone.

While it is not possible for us to recommend one file management system for every group and organization, we would like to present here one of the most common and useful examples of file management, the "wiki." Therefore, in this section we provide a minimal starting guide for using PBworks, a free online resource.

2.5.2 Using a Wiki for File Management

In principle, using PBworks is simple:

1. Point your browser to **www.pbworks.com**.
2. Click **Try it Now**.
3. Select the Free plan (unless your group wishes to purchase a paid subscription).
4. Follow the wizard's steps to create your wiki.
5. Edit the introduction page by clicking on the **Edit tab**.
6. Create additional pages, if desired.
7. Invite team members by clicking **Settings** → **Users**, then typing their email addresses.
8. Begin creating/editing pages and uploading files.

Editing wiki pages is, for the most part, self-explanatory. Assuming you have given your team members writing privileges, they can click on the **Edit tab** and edit any individual page. Once you click on the **Edit tab**, text can be copied and pasted from programs such as Microsoft Word, while retaining most formatting, such as italics, font size, and headings. However, other features of Microsoft Word (such as automatic numbering) are non-transferrable. Once you have edited a page, be sure to click "Save" at the bottom of the screen to ensure your changes have been recorded. There is a link on each page to that page's edit history and users can subscribe to email notifications and/or RSS feeds to receive information about page updates. The page history gives a list of links to past revisions (noting, in particular, the time of each) with the additional option of comparing any two. It is worth noting, however, that this compare function only lists changes made to the content of a page, not to its formatting.

Your wiki will be searchable and you can view a complete list of pages at any time by clicking **View all pages**. Nevertheless, it would be a good idea to utilize some of PBworks' organizing features by placing pages in folders. To create a list of subfolders:

1. Click **Create New Folder** on the right side bar.
2. Name the folder.
3. Click on the named folder.
4. Create new pages in the folder by clicking **New** → **Create Wiki Page.**

Creating a list of folders (with links to those folders) on the front page and putting a directory page in each folder will simplify site navigation immensely. To create links between pages:

1. Navigate to the page where the link will be inserted.
2. Click the **Edit tab**.
3. Type some text or highlight some text that will serve as the link anchor.
4. Select **Insert link** to a new page on the right side menu.
5. Choose **PBworks Page** from the first drop down menu.
6. Choose the appropriate page from the second drop down menu.

Finally, to begin using PBworks for file sharing, your team will need to upload files to be shared with others. Below, in Section 2.5.3, we discuss version control of files by using naming conventions. However, to upload files:

1. Select the page where a link to the file will be located.
2. Click the **Edit tab** on the top of the page.
3. Select **images and files** from the right side menu.
4. Click **Upload files.**
5. Navigate to the appropriate file and select **OK**.
6. Place your cursor at a spot in the text or highlight some text that will be linked to the file.
7. Select the file from the right side menu and the text you highlighted will be underlined to indicate a link or the name of the document will appear where you placed your cursor.

This introduction simply discusses the most basic features to begin using your wiki quickly, but as you begin experimenting with PBworks, you'll discover that it contains many useful features not discussed here, such as inserting images and plugins (e.g., YouTube videos, tables of contents, etc.) by using the appropriate feature in the editor. For a complete list of plug-ins, visit http://usermanual.pbworks.com/Plugin-Information. Finally, as is the case with any software, particularly web-based software, these instructions might change at any time as the developers alter their services. However, PBworks has been stable for quite some time, with only minimal alterations to the basic scheme.

2.5.3 Version Control

Version control is very important when several people edit one manuscript, either sequentially or in parallel. Name your files in such a way that everyone on the team understands who worked on the document, and when they did the work. An example of a well-named document is: *TransactionsPaper-Dec6-2pm-imw.doc*. This file name indicates that you are looking at the draft of a certain transactions paper, last edited on December 6 at 2 pm by I.M. Writer. Each time a new author begins working on a docu-

ment, the first action should be to change the name. In other words, if a second author were to begin working on the transactions paper cited above, that new author would:

1. Download the file from the wiki.
2. Resave the document with a new name on his or her own hard drive, for example, as *TransactionsPaper-Dec8-8am-nw.doc*.
3. Edit the document as necessary.
4. Upload the new document to the wiki.

In order to avoid "leapfrogging," no group member should be able to edit the file while someone else is working on it. In other words, only one writer should be working on one part of the document at any one time. One way to ensure your team members do not leapfrog is to create an entry in your wiki that looks like this

```
Filename: ProjectReportJun11dtw.doc
Status: Checked out by John
Description: This is the most recent version of our project
  report.
```

The words "Checked out by John" need to be entered manually by John when he starts working on the document after he has downloaded it. Two other possible entries for the Status field are "Available," meaning that the document is available for edits, and "Frozen," meaning that this document is not meant to be the subject to changes. All of the transactions on a document—each upload and associated author—should be recorded in your wiki so that the team has a history of the document's construction and associated authors. Therefore, your team members will need to be familiar with the procedures for editing pages in the wiki.

To summarize, the overall process for version control works this way:

1. Ensure that a document is available to be edited by checking its status in the wiki.
2. Download an existing file.
3. Edit the wiki text to indicate the document's status (e.g., "checked out").
4. Rename the document with the appropriate naming conventions.
5. Edit the text.
6. Upload the document to the wiki.
7. Edit the wiki to indicate the document's status (e.g., available).
8. Add commentary on the new version of the document indicating the work accomplished.

Your team might evolve some slightly different procedures and naming conventions, but, in principle, every team should use standardized naming conventions that show the version of a document and who worked on the document last and at what time. Your team should also develop a uniform plan for checking files in and checking

files out, especially if you're using a wiki and not a formal document sharing program like SharePoint.

2.6 CONCLUSIONS

If you have read this chapter, you have now completed the Quick Start Guide to *STREAM Tools*. The Quick Start did not focus on explaining why things are done this way, or how the templates were created. The Quick Start does not differentiate between hard rules to be followed exactly and personal preferences that can be altered by experienced writers. Instead, the Quick Start enables you to quickly learn the most useful features of *STREAM Tools* in order to make your writing highly compatible with that of others who use the same system. If you wish to move beyond blindly following Quick Start rules, read on.

EXERCISES

Exercise 2.1. Download the file *BasicTemplateSingleColumn.doc*. Modify the template so that it has three figures, four equations, two tables, and six headings of different levels, all properly autonumbered. Use any of your past papers as a filler text. You should not worry about content, only formatting features.

Exercise 2.2. Download the file *BasicTemplateDoubleColumn.doc*. Modify the template so that it has three figures, four equations, two tables, and six headings of different levels, all properly autonumbered. Use any of your past papers as a filler text. Again, formatting features, not content, is important here.

Exercise 2.3.
(A) Create a private wiki on pbworks.com.
(B) Give access to your supervisor/instructor.
(C) Upload your modified templates (see Exercise 2.1 and Exercise 2.2), and create links to these two files on the Front Page of your wiki.
(D) Give these files status "Frozen."

Exercise 2.4. Proofread a classmate's document using shorthand comments from Table 2.1, the STEM Table.

Exercise 2.5. Address the comments from your classmates given in the previous exercise.