

Useful Microsoft Word Techniques

This document is not all-inclusive. It is limited to the special techniques that I find especially useful. It was begun in 2005, if not earlier.

This document addresses Word 2003. Please note that newer versions of Word may look and/or work a little differently than described here. I think the object models are the same, but the UIs of Word 2007 and Word 2010 are markedly different (and frankly I dislike them).

The ultimate tools of Word are macros (authored in Visual Basic for Applications, or VBA) as they can not only do more than what the menus and wizards provide, but they can do it faster and over and over again. They are described in a separate document.

There are companion documents that address topics too long to be included here:

- Indexing
- Text boxes
- Getting around (including navigation and editing)

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STARTING WITH WORD

If you are going to use Word to write more than a letter, especially if you are going to write a multi-page report, you are best served if, ASAP, you familiarize yourself with the inherent elements that Word uses to structure a page.

First of all, a page is a “virtual” entity, not a physical one. You benefit from this in many ways: when you add text to a line, causing it to word-wrap; when you change the size of the letters, the height of a line, or the margins of a page. Word responds to all of these by re-flowing the text. Eventually the text flows to a second page.

Sections

The most-inclusive container of text is a *section*. Probably most of your docs will have only one section and it will be invisible.

When you mix pages with different orientations—portrait and landscape, when you mix pages with different margins or number of columns, you will have to employ more sections.

In actuality page margins, orientation, and columns, really belong to sections, not pages. When you use different margins and/or orientation, you apply them to a *standalone** section. When you use a different number of columns, you apply that to a *continuous* section.

You create a standalone section by inserting a “next page” section break, then applying the different margins and orientation to the new section.

You create a continuous section by selecting text and applying a different number of columns to it. Word automatically inserts a continuous section break before and after the text.

Page headers and footers belong to sections. When you want to change the contents and/or the format of a header/footer, you have to create a new standalone section to hold your changed header/footer. A common reason to do so is to change page numbers from roman to Arabic numerals and to restart numbering from one.

Word offers two variants on the header/footer that do not require a separate section: “different first page” (in the current section) and “different odd and even” (for left-right duplex mirroring).

The best practice is to never use the different first page option. If you ever add sections to a doc that was originally set up with different first page header/footer, you will rue the day—because that setting will be automatically applied to every new section, and manually removing it is tedious. If you do find yourself facing the need to add sections to a doc set to use a different header/footer on the first page, do yourself a big favor: turn off that option before inserting section breaks.

* The name “standalone” is mine, Word, to my knowledge, has no name for a section that is not continuous.

CHARACTERS

The obvious characters you can type into a document are those on the keyboard. There are additional characters:

- Special characters like the em dash (a favorite of mine) are inserted with menu Insert, Symbol then choosing the character on the Special Characters tab.
- Unique font-specific characters like ☒ are inserted with menu Insert, Symbol then choosing the font and character on the Symbols tab.
- Unicode characters like the dagger used as a footnote reference mark are inserted by typing the Unicode value then [Alt+X]. For example, the dagger is U2020, so you type U2020[Alt+x]: †. This technique works with Word 2003. The double dagger is U2021, ‡. Unicode characters can be found at <http://www.unicode.org/charts/> Unicode characters are rendered with font Arial Unicode MS or Lucida Sans Unicode.
- While Word has a special character for 1/4 em space, there is no thin space (so useful for separating guillemots from enclosed text, e.g., «enclosed text»). You can use the Unicode character U2009, but it seems to increase the line height. Another method is to select the character to the left of the desired space and use the Format, Font dialog box to expand the character spacing between that character and the one on its right: «enclosed text » here the first thin space is expanded by 1pt, the second by 2pt. You may have to try different spacings to get your desired result.

Punctuation, Signs, and Symbols

Typography does not address punctuation, signs, and symbols. So I will address these separately. The basic thing to overcome is the keyboard: Only a few punctuation marks can be inserted with the keyboard; these include the period, comma, colon, semi-colon, question mark, exclamation mark, parentheses, square brackets, curly brackets, and hyphen. All other characters can only be inserted with menu Insert, Symbol.

The most misused characters are:

- a hyphen for a dash
- multiple hyphens for an en dash or an em dash
- single quote (or apostrophe) for single prime, or vice versa
- double quote for double prime, or vice versa

Word has a nifty tool that automatically changes the single (') and double prime (") characters on the keyboard to true apostrophes and quote marks; this is the “replace straight quotes with smart quotes” AutoFormat setting. Unfortunately, when that setting is on, it is virtually impossible to insert a true prime character (needed to indicate inches and feet). You may have to turn this setting off in order to insert a prime character.

Learn the built-in shortcut keys for dashes and use them properly.

Here are some of my favorite signs and symbols:

<i>Character</i>	<i>Font</i>	<i>Character code</i>	<i>With Alt key and numeric keypad</i>
' single prime	Symbol	162	

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<i>Character</i>	<i>Font</i>	<i>Character code</i>	<i>With Alt key and numeric keypad</i>
≤	Symbol	163	
° degree	Symbol	176	[Alt] + 0176
" double prime	Symbol	178	
≥	Symbol	179	
+ plus	Symbol	43	
- minus	Symbol	45	
× multiply	Symbol	180	[Alt] + 0215
÷	Symbol	184	
≠	Symbol	185	
▪ bullet	Wingdings	167	
☐ bullet	Wingdings	113	
■	Wingdings	110	
●	Wingdings	140	
✕	Wingdings	251	
◎	Wingdings 2	158	
* (asterisk)	Wingdings 2	226	
✓ checkmark	Wingdings 2	80	
» guillemot			[Alt] + 0187, increase size
« guillemot			[Alt] + 0171, increase size
→	Wingdings 3	103	
▶	Wingdings 3	117	
▼	Wingdings 3	152	
◀	Wingdings 3	197	
*	Symbol	42	
†	Arial	2020	
‡	Arial	2021	
¶ paragraph	Arial	00B6	[Alt] + 0182] in characters in Arial font
¶ paragraph	AGaramond		[Alt] + 0182]in Adobe Garamond
© copyright			[Alt] + 0169]
£ English pound			[Alt] + 0163]
€ Euro			[Alt] + 0128] in characters in Arial font

Insert Characters by Using Character Codes

You do not have to limit the text in your document to the characters on the keyboard. You can insert other characters like typographical characters (e.g., em dash), letters with dots or accents above or below them (e.g., ù), mathematical characters (e.g., ≈), bullets (e.g., ◻ and ◼), etc.

Characters can be ANSI or Unicode. The ANSI character set is an 8-bit character set used by Microsoft Windows that allows you to represent up to 256 characters (0 through 255) by using your keyboard. The ASCII character set is a subset of the ANSI set.

The simplest way to insert non-keyboard characters is with menu Insert, Symbol. For characters that cannot be inserted in this way, you must use a more esoteric approach.

Characters must be included in the text font, which means you may have to change the font in order to insert the desired character.

- Insert the Unicode character for the specified Unicode (hexadecimal) character code: type the character code, followed by [ALT+X]. For example, to insert the euro currency symbol (€), type 20AC, and then hold down the ALT key and press X.
- Insert the ANSI character for the specified ANSI (decimal) character code: [ALT+ the character code (on the numeric keypad)]. For example, to insert the euro currency symbol (€), hold down the ALT key and press 0128 on the numeric keypad.

Non-Breaking Characters

I know about non-breaking space and non-breaking hyphen, but need from time to time a non-breaking en dash and em dash. This web page has ways of effecting this.

http://word.tips.net/T000482_Non-breaking_Em_Dashes.html

Well, I tried the Symbol General Punctuation method. The en dash character code 2013 is the same symbol as entered by {Ctrl+Num+-} and is not sticky on the right side. The character just to the left of it, a Figure Dash, is sticky on both sides. It is not identical to an en dash, but is close enough.

The figure dash (•) is so named because it is the same width as a digit, at least in fonts with digits of equal width. This is true of most fonts, not only monospaced fonts.

The figure dash is used when a dash must be used within numbers (e.g. phone number 555•0199). It does not indicate a range, for which the en dash is used; nor does it function as the minus sign, which also uses a separate glyph.

The figure dash is often unavailable; in this case, one may use a hyphen-minus instead. In Unicode, the figure dash is U+2012 (decimal 8210). HTML authors must use the numeric forms ‒ or ‒ to type it unless the file is in Unicode; there is no equivalent character entity.

CUSTOMIZING WORD

There are several ways in which you can customize Microsoft Word:

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<i>Feature-Functionality</i>	<i>Customization</i>
toolbar	change a standard toolbar create a new toolbar
menu	change a standard menu create a new menu
shortcut key	change a standard shortcut key create a new shortcut key
macro	define a series of actions (as a macro) so they can be executed over and over again at will

For a menu item or toolbar item you can:

- add/change an image,
- add/change the text,
- add/change the shortcut key, and
- assign a hypertext link.

Why Do It?

To make working with Word easier and quicker—more efficient. In some cases, reducing the reliance on the mouse (by enabling simple use of the keyboard) can reduce the risk of Carpal Tunnel Syndrome.

- Faster access to standard Word commands can be achieved by adding the desired commands to a menu and/or toolbar.
- Speedy application of custom formats can be achieved by (1) creating a macro that defines and applies the format and (2) adding it to a menu and/or toolbar.

Suggested Customizations

1. Create a custom toolbar with only the commands you use frequently. Note that many standard Word commands do not appear on a menu or toolbar.
2. Create a macro to reverse transposed letters, assign a shortcut key to it.
3. Create a macro to toggle the case of selected characters, assign a shortcut key to it.
4. Create a macro to open a document for use as a template, assign it to a toolbar with a shortcut key.
5. Create a macro to define a custom table format, assign it to a toolbar with a shortcut key.
6. Create a macro to define a custom bulleted paragraph format, assign it to a toolbar with a shortcut key.
7. Create a macro to concatenate several documents and save the new document.
8. Create a macro to toggle a hanging indent, assign it to a toolbar with a shortcut key.
9. Create a macro to insert a registration mark at the first occurrence of the trademarked word/phrase.
10. Create a macro to run automatically when (1) Word opens, (2) Word closes, (3) new document begun, (4) existing document opened, or (5) document closed.

Toolbars and Menus

For this discussion, the menu bar is a special kind of toolbar. Menus can be created and changed in the same way as toolbars.

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How to Create a Custom Toolbar

1. Use menu Tools, Customize to open the “Customize” window.
2. Select the Toolbar tab. Select the [New] button to open the “New Toolbar” window.
3. Enter a toolbar name. This can be mixed case and contain spaces. Select [OK], which closes the window and leaves the new—and empty—toolbar in a small window.
4. In the “Customize” window, select the Commands tab. One at a time, select a Category in the left pane, then select a Command from the right pane. Drag the Command to the new toolbar window.
5. When you are done, close the “Customize” window.

How to Change a Toolbar

1. Use menu Tools, Customize to open the “Customize” window.
2. You can remove commands from any toolbar by dragging them off one at a time.
3. You can add a command to any toolbar by dragging it from the “Customize” window to the toolbar.

Important Points About Toolbars

Software upgrades to Word will likely restore the standard Word toolbars to their original state. Thus making changes to them may not be permanent. It is best, especially if the changes are substantial, to create your own toolbars and use only them. Use menu View, Toolbar to close unused toolbars.

Macros

How to Create a Macro

The easiest way, and one that works for most purposes, is to record it. Use the menu Tools, Macro, Record New Macro. Use the help file for directions.

About Auto Macros

There is a group of macros that run automatically when five different events occur. These macros are identified by their name:

AutoExec	Word opens
AutoExit	Word closes
AutoNew	new document begins
AutoOpen	existing document opens
AutoClose	document closes

The macros can reside in any template, including **normal.dot** and in a document file. AutoExec will only run when it is in a global template named in the “Templates and Add-ins” dialog box or in the Startup directory (specified in File Locations).

Either a procedure is named Autoxxxx or there is a module of that name with a procedure named “Main”. The latter enables more elaborate processing.

You can prevent an auto macro from running by holding down the [Shift] key until the action is complete. You can block all auto macros by code `WordBasic.DisableAutoMacros`:

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```
WordBasic.DisableAutoMacros 1 'Disables auto macros  
WordBasic.DisableAutoMacros 0 'Enables auto macros
```

Unfortunately these days the innocent helpful macro can be mistaken for a virus. The High security setting (accessed with menu Tools, Macro, Security) disables auto macros that are not digitally signed. The solution: (1) lower the security setting or (2) digitally sign macros. The second approach is best when you create macros for others to use; it requires you buy a digital certificate from a commercial certification authority like VeriSign. The VBA editor has a tool to sign macros with the certificate.

Shortcut Keys

A shortcut key is a combination of two or more keyboard keys that when pressed simultaneously initiate an action. There are pre-defined shortcut keys. And you can create your own: You can change the pre-defined keys and assign keys to the actions of your choosing, often macros, styles, and menus.

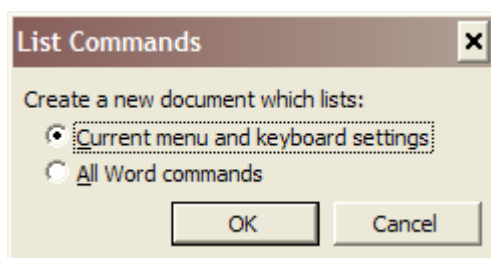
How to Create a Shortcut Key

1. Use menu Tools, Customize to open the “Customize” window.
2. Select [Keyboard] to open the “Customize Keyboard” window.
3. One at a time, select a Category in the left pane, then select a Command from the right pane. Press the desired shortcut key combination, then select [Assign].
4. When you are done, close the “Customize Keyboard” window and the “Customize” window.

Print Pre-defined Shortcut Keys

You can list Word’s pre-defined (built in) shortcut keys with macro “ListCommands.” Your own customizations are excluded.

Use menu Tools, Macro, Macros to open the “Macros” window. Set Macros in = “Word commands”. Select macro ListCommands, then [Run]. The “List Commands” window appears:



In this window select “Current menu and keyboard settings”, then [OK]. A new Word document is created containing the settings. Print this document and close it without saving.

These can also be found in the help file.

There is a website with a useful presentation of the built-in shortcut keys:
http://www.integriert-studieren.jku.at/idol/en/keys_msword.html

Print Custom Shortcut Keys

Custom shortcut keys can be listed by a macro. See *Word VBA Techniques* for details.

Important Points About Customizations

Toolbars and macros are stored in a `x.dot` template file. The default file is `normal.dot`, the default global template. When using customizations, it is best to use a version of `normal.dot` that is not the standard Word file. As mentioned for toolbars, software upgrades to Word will either restore `normal.dot` to its original state or change it unpredictably. Either way, your customizations are in danger of disappearing. The only way to protect them is to use a global template file located in a different location, say `c:\Data\Template`. You can create this file by copying the Word version into your own directory, then configuring Word to use your file: use menu Tools, Options to open the “Options” dialog box. On the File Locations tab, set the location of User templates to your directory (`c:\Data\Template`).

Be sure to save the template file before leaving Word. This is best done by using menu Tools, Options to open the “Options” window, then select the Save tab, then check the “Prompt to save normal template” box. Then, when you close Word after adding or changing customizations, you will be prompted to save the normal template; be sure to reply OK.

Macros are stored as *procedures* and *functions* within a *module* (these are Visual Basic terms); the Organizer refers to modules as *Macro Project Items*. When copying macros from one file to another, they are copied as an entire module. Your template file can have more than one module; you can use multiple modules to organize your macros.

- The default module is NewMacros. Recorded macros are placed here automatically.
- Add a module in the Visual Basic Editor (menu Tool, Macro, Visual Basic Editor) by using its menu Insert, Module. Then type the code in the code window.
- Rename a module in the Visual Basic Editor by opening the Properties Window with menu View, Properties Window. In the tab section, select the name and then type over it. You can then close the window.
- You can copy procedures from one module to another by selecting the code text in the code window (open this by double-clicking the module name in the Project Explorer window or with the menu View, Code), copy/cut, then select the other module and paste.
- You can delete a module with menu File, Remove *modulename*.

How to Copy Customizations Between Template Files

Styles, toolbars, and macros can be copied from one file to another by Organizer. Use menu Tools, Macro, Macros to open the “Macros” window, then select [Organizer]. Open both files, then use the [Copy] button to copy one or more objects at a time. Note that Word 2000+ Organizer copies entire modules, not individual macros. This restriction makes the use of multiple modules desirable.

How to Find Out What Customizations Exist in a File

1. Open the file in Word.
2. To look for macros, use menu Tools, Macro, Macro to open the “Macros” window. Change the value of the Macros In text box to reflect the name of your file. The list of macros will then reflect only your file.
3. To look for toolbars, use menu View, Toolbars to open a third level menu that is a list of all the toolbars. Custom toolbars are listed after the last standard Word toolbar (WordArt).

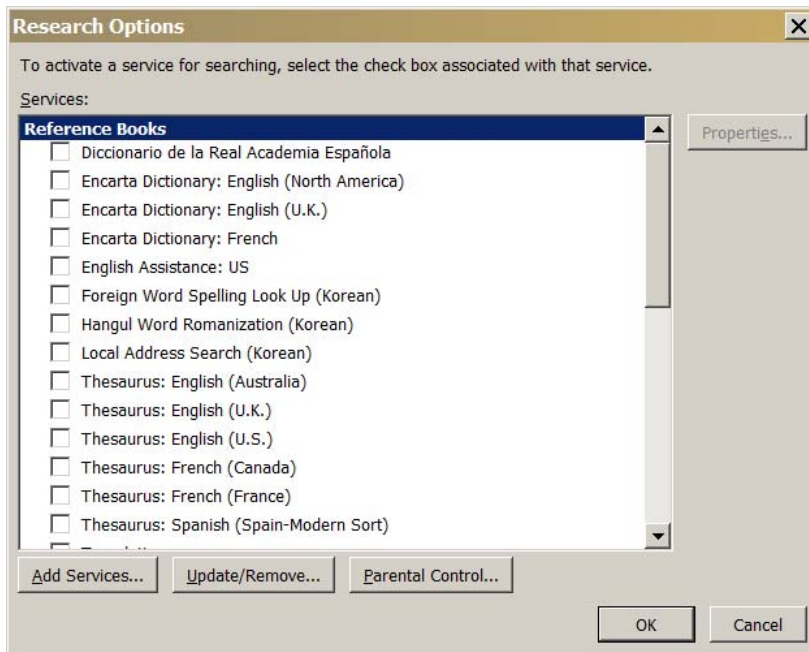
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4. To look for styles, use menu Format, Style to open the “Style” window. Unfortunately, customized styles are not obvious.
5. To look for shortcut keys, use menu Tools, Customize to open the “Customize” window. Select the [Keyboard] button to open the “Customize Keyboard” window. Unfortunately, you cannot see a list of all the shortcuts. Instead, you have to look at the individual commands to see if a shortcut exists for it. Even then, you cannot tell if the shortcut is standard with Word or custom.
6. Custom shortcut keys can be listed by a macro. See *Word VBA Techniques* for details.

Disabling the Research Tool

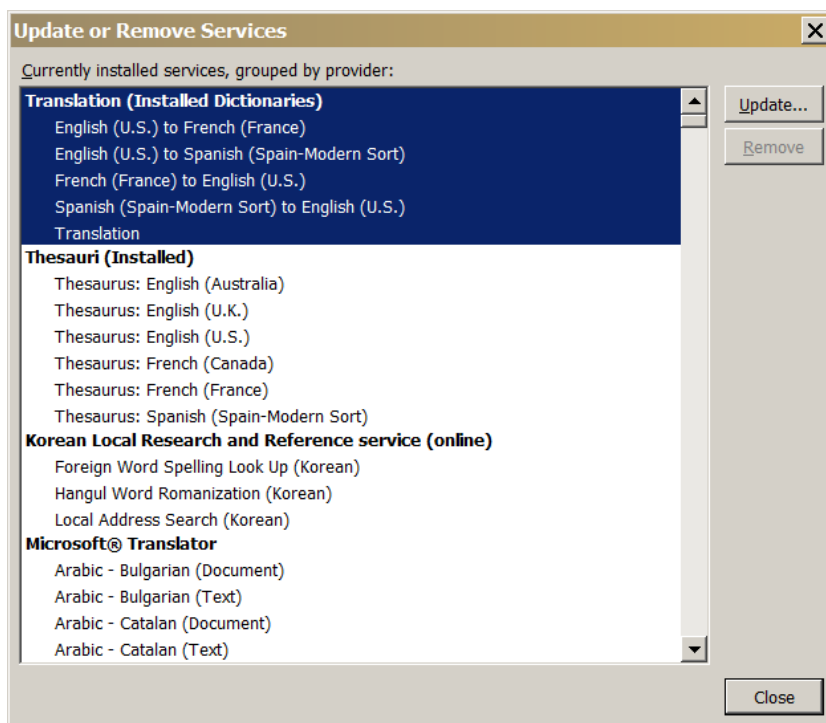
Personally I do not use the Research tool and will never use it. But annoyingly, some key combinations open the Research Pane, which I then must manually close. The Research pane is manually opened with menu Tools, Research or the shortcut key [Alt+click].

Use menu Tools, Research to open Research pane. At bottom of pane select Research options which opens a window of the same name. Uncheck all services.



Then select [Update/Remove] which opens the “Update or Remove Services” window. Select as many as you like and select [Remove]. Select [Close] when done.

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At this moment I do not know if this is enough to disable the pane.

http://word.mvps.org/faqs/macrosvba/taskpanesreferencecontentbody.htm#_Toc82745206

I found the suggestion that the following VBA code would disable Research:

```
Sub Research()  
End Sub
```

```
Sub ResearchLookup  
End Sub
```

I copied these into a new module which I named DisableResearch. We'll see how well it works. . . .
Not. Alt+click still opens the Research pane.

MY CUSTOM TOOLS

My custom Word global template contains custom menus, toolbars, keyboard shortcut keys, styles, and macros. These are itemized here to inspire you.

Custom Menus

View, Toggle Field Codes: Toggles the display of field codes. Use this to change a field code, especially when starting a new document.

View, Outline 3: Displays the document in outline layout with only heading levels 1–3 visible. Use this to check which headings exist, to rearrange them, and to renumber them.

View, Hide Built-In Toolbars: Hides all toolbars except the custom ones. If you use the custom toolbars, this is an easy way to hide unwanted toolbars that appear automatically at certain times, especially when using the custom keyboard shortcut key to change a style to List Bullet.

Format, Para Keep With Next: This is an easy way to toggle a paragraph keep.

Custom Toolbars

Susan: Contains one button linked to the macro to open the *Document Template.doc* file.

Susan1: Contains some standard Word commands for viewing and table formatting, and a custom button Hang (runs the macro ToggleHangingIndent).

Susan2: Contains some standard Word commands for formatting, and three custom buttons: ListBullet, Box, and ToggleCase which run macros SetListBullet, FigureBox, and ToggleCaseNextLetter respectively.

Custom Shortcut Keys

Alt+b: Runs macro SetListBullet.

Alt+c: Runs macro ToggleCaseNextLetter.

Alt+d: Runs standard Word menu View, Header and Footer. This is just a way to open the header with one keystroke. Repeating the shortcut key when the header is open causes it to close.

Alt+h: Runs macro ToggleHangingIndent.

Alt+m: Runs macro FormatTable.

Alt+x: Runs macro FigureBox.

Ctrl+r: Runs macro ReverseNext2Characters.

Ctrl+Alt+r: Runs macro ReverseNext2Characters.

Ctrl+Alt+Num5: Runs macro SelectTable.

Custom Macros

BuildDataMaintenance: Creates concatenated Word document for Data Maintenance section.

BuildEditorsGuide: Creates concatenated Word document for Editor's Guide section. [This and the previous macro illustrate the use of macros to build a concatenated document of many other documents. In this case each concatenated document has its corresponding macro.]

Portrait: Changes page setup to portrait. Used by the Build macros.

ChangeAllFilesInDirectory: Prompts user for directory name, then for each Word document in the directory, runs the macro SuppressBlankLineAtTopBottom. This macro could be easily cloned to run any other macro against every Word document in a directory.

FigureBox: Applies standard border to selected image: double grey lines.

FixSingleLineParagraph: Acts on selected text to replace the paragraph mark at the end of each line with one space. It puts a paragraph mark at the end of the selected text. It is helpful for reformatting text copied, from sources like TXT files or web pages, that has line breaks instead of automatic word wrapping.

FormatTable: Applies standard table formatting. The cursor must be in the top row.

HideToolbars: Hides standard toolbars. Helpful when they are automatically made visible (at odd moments) and are unwanted.

Keep: Sets the paragraph format to keep with next.

OpenTemplate: Opens file Document Template.doc. Used when starting a new document file.

RemoveAllHyperlinks: Removes all hyperlinks from the document.

ResetPageNumbers: Unlinks current section header and footer to previous ones, restarts page numbering at 1. Used by Build macros.

Useful Microsoft Word Techniques

ReverseNext2Characters: Reverses the two characters to the right of the cursor. Invaluable for the sloppy typist.

SelectTable: Selects the table at the cursor location. There is a custom shortcut key assigned to this, Ctrl+Alt+numeric keypad -, which was standard in Word 98.

SetCellMargins: Corrects cell margins for each cell in the table at the cursor location. Necessary after copying cells from an Excel spreadsheet that have zero cell margins. This happens if you choose the wrong paste method.

SetListBillet: Applies the custom ListBullet style to the selected text.

SetNotesToItalics: Loops through active document, finds instances of paired square brackets, then sets the text inbetween to italics. This is necessary because Word in all its wisdom removes the italics in an inconsistent and unpredictable manner; re-instating them manually one at a time is a time-consuming nuisance.

SetTableColumnWidths: Kept as a sample of setting widths of columns in a table.

ShowTextBoundaries: Toggles the display of text boundaries. The standard Word way of doing this is to use the Tools, Options menu. This macro is assigned to a custom menu button to enable executing it speedily.

SuppressBlankLineAtTopBottom: Applies the standard Word feature available with the Tools, Options, Compatibility menu. Run by macro ChangeAllFilesInDirectory.

ToggleCaseNextLetter: Toggles the case of the letter to the right of the cursor. Very helpful for correcting typing errors. Has a custom shortcut key assigned.

ToggleHangingIndent: Toggles a hanging indent in the paragraph at the cursor location. The standard Word feature does not work properly. Has a custom shortcut key assigned.

DOCUMENT PROPERTIES

A Document object can have one or more document properties. There are two kinds of document properties: built-in and custom (available in Word 2003). They are accessed from the File, Properties menu. The built-in properties appear on the Summary tab while the custom properties appear on the Custom tab.

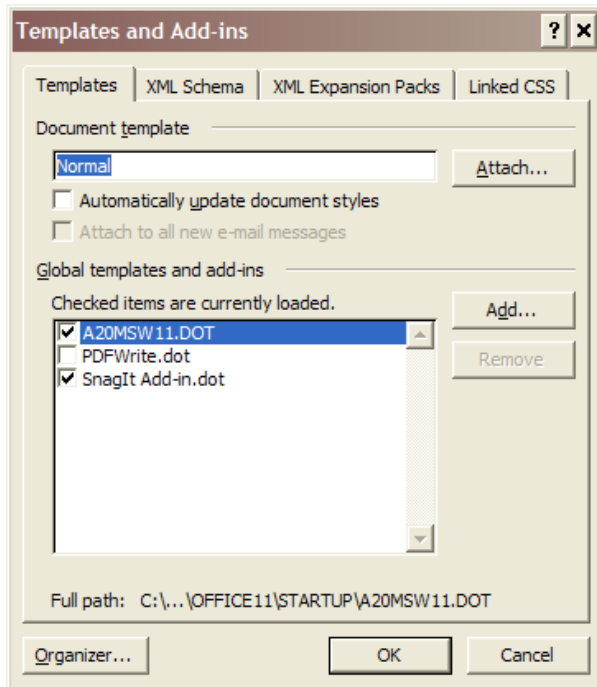
Version number can be stored as a custom document property. It can be placed in the text of the document by the DocProperty field code.

TEMPLATES

Templates are special files, named x.dot, that can hold text, graphics, and page margins and layout, and also customizations like macros, toolbars, menus, shortcut keys, styles, and auto-text. Every Word document is based on a template.

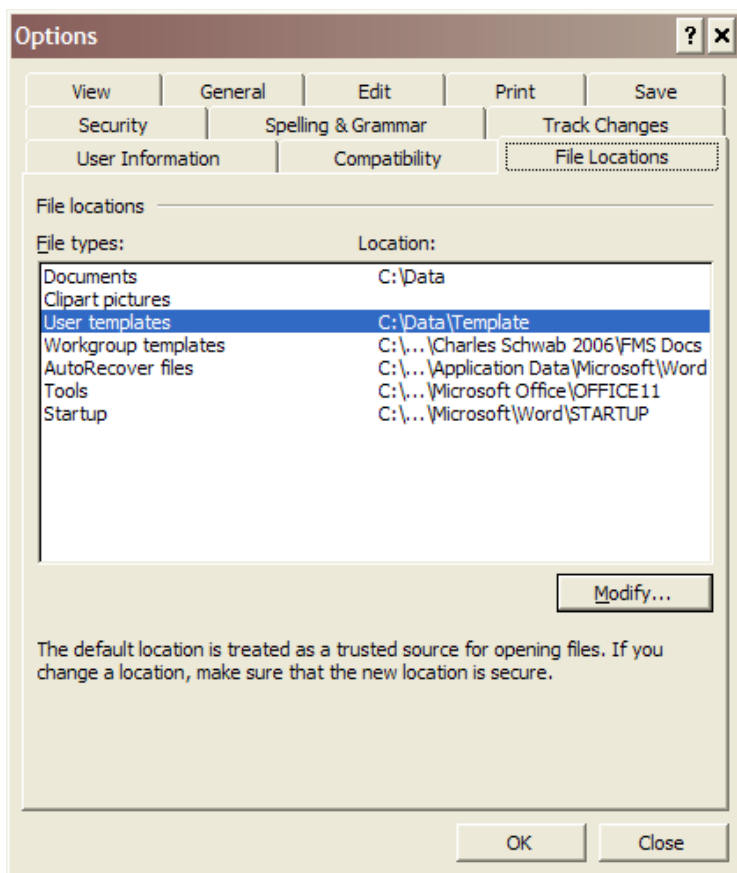
Menu Tools, Templates and Add-ins provides access to the template manager:

Useful Microsoft Word Techniques



It provides a way to identify global and document templates. Global templates are “loaded” and document templates are “attached.” Templates, once added, remain on the list, but must be loaded manually each time you start Word—unless they are located in the Startup directory or you change the file location of the user templates with the “Options” dialog box.

Useful Microsoft Word Techniques



For Windows XP, the Startup directory is located at:

C:\Program Files\Microsoft Office\OFFICE11\STARTUP.

Word comes with several document templates which are located at:

C:\Program Files\Microsoft Office\Templates\1033.

Word also stores templates (including **normal.dot**) in

C:\Documents and Settings\\Application Data\Microsoft\Templates.

There are several flavors of global template:

- The default global template, called the Normal template by Microsoft, is **normal.dot** and is located in a directory indicated on the menu Tools, Options, File Locations dialog box for file type "User template". It does not appear in the "global templates and add-ins" list in the "Templates and Add-ins" dialog box. It is automatically loaded each time you start Word. It is used as the default document template. It holds things like the default tab stop.
- Auxiliary global templates are global templates other than the default. They appear in the "Templates and Add-ins" dialog box.
- Add-ins are often loaded programmatically by applications like Adobe Acrobat that use macros to interface Word with their own processes. They can also be used to provide supplemental customizations to a work group. They contain only macros, menus, toolbars, and other customizations.
- Workgroup templates are available for creating new documents. They appear in the "New Document" task pane which opens automatically with menu File, New. They are typically used in offices for special forms whose appearance is controlled centrally. I suspect these are actually

Useful Microsoft Word Techniques

document templates, not global templates. I never use these, and have little familiarity with them.

Document templates can be used to create new documents and ensure a consistency of styles in existing documents. Typically a document template contains page margins and layout, a document outline, boilerplate text and graphics (like logos), page headers and footers, as well as styles. They may omit the outline and boilerplate. Document templates are available only to the documents to which they are attached.

Word comes with a global template file, **normal.dot**, located in the system directory related to Microsoft Office. You can delete this file, but it will be recreated automatically. If you have to reinstall Word, any changes you make to this file will be lost.

Any changes to a global template (for macros, toolbars, keyboard shortcut keys, and styles) are automatically saved in **normal.dot**.

When you start a new document, the styles in the global template are copied into it. When you attach a document template (with the “Automatically update document styles” checkbox on the “Templates and Add-Ins” dialog box), you overlay the global styles with the document template styles. You could, at a later time, attach a different template and replace the document styles.

The Organizer tool is used to copy, delete, and rename the contents of a template: styles, auto-text, toolbars (including menus), and macros.

Templates must reside on your C: drive. So when you are working with documents on a file server, copy the global/document template from the server to your own hard drive.

Best Practices

Use **your own copy** of **normal.dot** and locate it in your own data directory, e.g., **c:\Data\Templates**. Use it only for macros, toolbars, shortcut keys. Setting this up takes two steps: (1) copy the original file into your own directory and (2) change the file location of user templates. Use this default global template for all your customizations and the styles you use most of the time.

Use a **separate document template** file for each document or document set having a unique set of styles. When you start a new document, attach it to the appropriate document template, and then de-attach it.

Be sure to **de-attach a template from a document before saving** the document. It’s not necessary to maintain the attachment, in fact it can make for trouble: (1) if the template file is no longer at the address defined in the attachment, you may not be able to open the document; (2) if the template with the attachment name has different styles than the one you originally used, the new styles are automatically applied to the document when you open it—and cannot be undone.

When you need **portability** of custom tools (macros, toolbars, etc.) copy them from **normal.dot** into another global template, say “My Global Template.dot” and take it with you. At your remote workplace, set up your own copy of **normal.dot** and then copy your custom tools from your portable template to **normal.dot**. Any changes to those tools can be carried back with the same mechanism. Macros can also be copied via a x.bas file; within the Visual Basic Editor, the project is exported from one template and imported into another.

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When a document type is defined with an outline and style sheet, it can be implemented with (1) a document template file for the styles and (2) a document outline file (.doc) that contains the standard document layout, especially the page formats, and a sample of the document outline. A new document is created by opening the outline file, ensuring it is attached to the document template, then saving it as a new file. The new document is written in the new file.

When you have a document template file attached to a document file, and when you save the document file, you will be prompted to save changes to the template file.

STYLES

Styles are largely invisible. That doesn't mean you should ignore them. They can be your friend or enemy depending on how well you use them.

Background

Everything in the content of a Word document—all the text and images—has a style associated with it. Styles have names, a style type, and formats. The formats of a style are considered its definition.

Only some *formats* are used by styles: font, paragraph, bullets-numbering, border-shading, tabs, and frame. Essentially, these are the formats accessible from the Format menu and are available to most text.

There are *types* of styles: paragraph, character, list, and table (new with Word 2003). Paragraph styles can use all formats available to styles. Character styles are limited to font and border-shading formats. Paragraph styles apply to text that ends with a paragraph mark (¶) and includes list items.

How to see which style a piece of text has:

- Use a toolbar that includes a control that displays the style name of the current text. The built-in Formatting toolbar does this. You can also create a custom toolbar to do this, select Format, Style from the “Command” tab in the “Customize” window (accessible from menu Tools, Customize).
- With the cursor in the subject text, use menu Format, Styles and Formatting to open a pane of that name. The name of the style used by the subject text is located at the top of the pane in the group titled “Formatting of Selected text.”

Text formats can be defined in four different places:

- The *global template* holds style definitions. The default global template is **normal.dot**. This is also the default document template for new documents. When a new document is begun, it inherits styles from the global template.
- The *document template* holds style definitions. The document template is its own file, with a **.dot** suffix. After it has been created, it can be attached to one or more documents; the template styles may automatically replace the document's style definitions (this is optional but advisable—why else use it?). A document template is commonly used to hold style definitions that apply to a set of documents, it is rarely helpful in other cases. Be cautious about specifying document templates on file servers, see below for an explanation.
- The *document's style definitions* are specific to the individual document and are held within the document file. These style definitions are copied from the global template when the document is

Useful Microsoft Word Techniques

created, they may have been subsequently replaced by styles from a document template. And they can be changed within the document.

- *Local formats* are applied to selected text. You change local formats with items on the Format menu: Font, Paragraph, Bullets and Numbering, Borders and Shading, Tabs.

Text formats are applied in descending order of priority:

1. local formats,
2. the document's style definitions,
3. the document template style definition,
4. the global template style definition.

This means that local text-specific formats override those in the document style definition which override style definitions in the document template (when it exists) which, in turn, override style definitions in the global template.

The document template is a DOT file attached to the document with the menu Tools, Templates and Add-ins. Setting the “Automatically update document styles” property to Yes causes the format of the document text to automatically change to correspond with the style definitions in the document template. (This is a good practice.) That property is specific to the document and is saved with the document along with the identity of the document template.

You can change formats for all text having a named style by changing the style definition: use the menu Format, Styles and Formatting to open a pane of the same name; select the style name and then [Modify]. You can then change any format for that style in the document style definitions. You can also, optionally, have the style definition changes applied to the template, either document template if it exists or global template, when you set the property “Add to template” to Yes.

You can change style definitions in a DOT file directly by first opening it and then using menu Format, Style to make changes. The style changes are saved when you save the file. You can also use the Organizer to copy styles from one file to another.

Use caution when sharing document files having an external template. If the document is set to use a global template and to automatically update document styles, when the document opens on a computer with a global template of the same filename but with different style definitions, those definitions will be applied to the document. If the document is set up to use a document template that the user cannot access, they won't be able to open the document—or they won't be able to change the identity of the document template (I cannot recall which, either is a big problem).

You can create a document template DOT file based on an existing document:

1. Open the base document.
2. Save as document template and in the appropriate directory.
3. Edit the new template: page formats, text formats, text and graphics.
4. Save the template.

You can copy character and paragraph styles from some text to other text with Format Painter:

1. Select text having desired format.
2. Click Format Painter tool in Standard toolbar.
3. Select text to be changed.

Useful Microsoft Word Techniques

You can discover the styles applied to text in a document, but unfortunately this is a manual effort. After you open a toolbar that indicates the name of the style where the cursor is, scroll through the document keeping your eyes on the toolbar. There is a “styles in use” option on the “Styles and Formatting” pane, but . . . that does not reflect currently applied styles, but only styles that were or are applied. If you clone an existing document, you will be copying the “in use” setting of all the styles in that document, whether or not your document applies them.

Best Practices

Use Styles to Control All Possible Formats

For formats that can be controlled by styles—e.g., font and paragraph—define the styles to use the desired formats and apply those styles to the appropriate text.

Minimize Local Formats That Override Templates

If you find yourself doing this regularly, it’s better to create a new style specific to this format and apply it to the text.

For One-Off Documents Use Document Style Definitions

Separate style templates are not necessary for one-off documents. And certainly not advised for documents you will share with others via email, or any other method where the other readers will not have access to a separate style template.

In this case redefine the styles in the document without changing them in the global template.

Use Your Own Document Template File

See section *Templates* on page 15 for details.

Create your own default global template to hold the styles you use for most documents.

When you are writing a series of documents which must look the same, create a single document template file for them and attach it to each document. It can be handy to create a macro that attaches the template to the open document.

Set the “Automatically update document styles” property of the document template to Yes. See explanation above.

When you have completed the series of documents, remove the document template reference from them.

Document Your Style Sheet

Keep a separate Word document describing the style sheet. Discuss and/or specify:

- how will chapters be numbered
- how will pages be numbered
- how will information sources be identified
- version numbering scheme and application
- page formats: margins, header, footer
- typography (e.g., em and en dashes)

Useful Microsoft Word Techniques

- which named styles are to be used for what text

Style Sheets for Shared Documents

Sharing documents electronically presents unique problems with styles. The document template file, if it exists, is unlikely to be used by other readers/editors. Ditto for a default global template file.

- One solution is to save the document as an Adobe Acrobat (PDF) file, which embeds the formats and fonts.
- The fool-proof solution, if you must share the DOC file, is to use unique style names and have their definitions reside in the document. Be careful to use only fonts that other readers and editors are likely to have installed on their computers. If you use non-standard True Type fonts, you can embed them in the document with a setting on the Save tab of the “Options” dialog box.
- A third approach, although less satisfactory, is to set to No the document template property “Automatically update document styles” before saving it. This should always be done.

Change Automatically Numbered Lists to Plain Text

Auto-numbered lists are created with menu Format, Bullets and Numbering, Numbered. They are convenient in draft documents. After that they can become troublesome. They are especially troublesome if you create a new document by inserting several other files which use auto-numbered lists; all of a sudden a list will continue the numbering of a preceding list. Additionally, auto-numbers do not handle well the conversion to other programs.

Once they have outlived their usefulness, you can convert the numbers to plain text. As of Word 2003 there is no tool to do this, so you must do it manually: Select the list items, cut them, then paste them into the same place as unformatted text (with menu Edit, Paste Special). Lastly, apply a character style to the numbers if desired.

Character Styles

Character styles are useful. I use them in the following ways:

- run-in heading
- emphasis (typically this is bold, colored differently, and a sans serif font)
- definition term (an element in a definition list, especially when the term and definition are in the same paragraph)
- figure or picture (I use a style to apply a border)

Table Styles

THIS WAY LEADS TO GRIEF!

These styles are defined differently than the other types.

Use menu Table, Table Autoformat to open the “Table Autoformat” window. You can set a predefined table style as the default, you can change the formatting of a predefined style, or you can create a new custom table style. Table formatting includes font, borders, alignment of text in cells, and table properties such as inside margins. Formatting can be defined differently for the whole table, header row, etc.

Useful Microsoft Word Techniques

I typically use two table styles. One, TableGrid, has gray borders with 0.1” inside margins and cell alignment bottom left. The other, TableElegant, has gray borders, double outside border, 0.3” inside margins, cell alignment bottom left, no page break in the middle of a cell, and the header row is italic.

You can apply a table style by selecting the table then select the style name from a toolbar control or from the Styles and Formatting pane.

Numbered Figures

It is common practice to give a figure a caption with a sequential number, like
Fig. 1 Caption

I like this font, Arial Narrow. There is a built-in style, CaptionAutoNum, which can be used for figure captions. It a paragraph style with numbering. You can edit the style to use the font you prefer. Figure captions with this style are easily sourced to create a Table of Figures, see page 66.

There are problems with this style that have to do with the too-large space between the words “fig. x.” and the actual caption text.

- (1) Word is not set up to create figure captions that are compliant with *The Chicago Manual of Style*, at least not using the numbered list and the insert caption tools.
- (2) Word will always put a tab between the bullet/number and the text. And you cannot control its position.

Techniques

Choose the style names to be listed as “All styles” in the Styles and Formatting pane by (1) opening the pane with menu Format, Styles and Formatting, (2) in the Show drop-down list select Custom to open the “Format Settings” window, (3) check and uncheck the listed styles to select the set that you will work with on a regular basis, (4) set Category = All styles, then (5) select [OK]. Now when you open the Styles and Formatting pane, only the styles you want to work with will appear.

Change the style of selected text by (1) choosing the style with the style button on the Formatting toolbar or (2) choosing a style from the list on the Style command (available on the Format menu) and select [Apply].

Remove character styles and local formats by selecting text and [Ctrl+SPACEBAR]. You can do this to an entire document by first selecting all the text.

Copy styles between templates and/or documents with the “Organizer” command, available from the “Style” command. If you use Organizer a lot, as I do, add it to a menu.

You can give yourself the **choice of always applying style changes** to a template or only doing so selectively by setting to Yes the property “Prompt to save Normal template” on the “Save” tab of the “Options” command, available on the Tools menu. Then, when you close Word, you are prompted to save the style changes to the template; you can reply Yes or No.

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You can setup a particular style so that its **definition is automatically changed** whenever you apply manual (local) formatting to any paragraph having the named style. Do this with the “Style” command: select the style and set the property “Automatically update” to Yes.

It can be helpful to **display style names** applied to document text as you edit the document: as the cursor moves through the text, the name of the style of that particular text is displayed. An easy way to do this is to use the Formatting toolbar or a custom toolbar with the Style button.

Use styles unique to your document by first creating the styles, then applying them to selected text. Do not save the style definitions in a template.

TYPOGRAPHY

This has become a favorite subject of mine. *Typography* is the style, arrangement, or appearance of typeset matter—“the visual aspects of written language.” Its goal is to transmit a message as clearly as possible. Please consult a writing reference for information on typography. My focus here is to address simple things that can and should be done to improve the quality of your documents.

A possible source of confusion is that Word sometimes uses a vocabulary that differs from that of the writing and typography reference books.

Typographical Elements

Typeface

The basic element of typography and the starting point for creating a Word document is the typeface of the body text. Typeface is a set of types for an alphabet comprising a single design (a type font is a set of types of the same face design and body size).

Select a body text typeface carefully. Typographers choose typefaces for their legibility, beauty, expressiveness, adaptability, and appropriateness—and so can you. The typeface must be selected in conjunction with body size, line length, and leading (line height) with the goal of achieving the ideal type *color*. Color in this context describes the appearance of a mass of type on the page, the precise shade of gray created by the visual mixture of black type and white paper, and the visual texture of the mass. The basic feature of good typesetting is consistent color.

When reading is the goal, as it is for internal business documents, the optimal text is smooth, flowing, and pleasant to read. For the smoothest appearance, choose a typeface whose letterforms have small variations in width, medium height-to-width ratio, medium x-height, small variations in stroke weight (contrast), medium counters, no mirrors*, and no quiriness. Favorite typefaces include Adobe Caslon, Adobe Garamond, ITC Stone Serif, and Janson Text 55 Roman.

Other possible typefaces: Palatino Linotype, Slimbach Book, Times, Times New Roman (overused). Note: Arial and Verdana, both gothic typefaces, do not qualify as they have no variations in stroke weight.

* The letters q and p may be mirrors as may be d and b. The mirror quality makes for difficult reading in text.

Useful Microsoft Word Techniques

If you are restricted to the fonts packaged with Word, your choices are few: Palatino Linotype, Slimbach, and Times New Roman. The latter is the built-in font for the Normal style and is way overused. I do not think it particularly attractive.

Word refers to the style of body text as “default paragraph style” and the built-in style is named “Normal” (a perhaps overused word). There is another built-in style called “Body Text” which some use, but not me.

So redefine the Normal style to include the font and size that are the most readable. I like Adobe Garamond in a size of 11 or 10.5 points. Yes, you are not restricted to the numbers in the drop down list; type your own!

Page Margins and Layout

Do not feel limited to the built-in values for page margins and layout. I’ve come to accept side margins for portrait pages as 1.25”. But I increase top margins to 1.1” and decrease bottom margins to 0.9”. For landscape pages I use side margins of 0.5”.

Paragraph Margins

Word is a pill when it comes to some paragraph margins. The CSS model is so much better. . .

I’ll use the CSS model as a reference. Margins, padding, and line height are the relevant elements. Margins are essentially external to the text block while padding is internal to the text block. When a paragraph has a background color, it extends to the padding but not the margins. If you want to place text on a thick colored background, then you add top and bottom padding to achieve the desired thickness of the colored background.

It is not that simple with Word—because there is no equivalent to CSS padding. CSS paragraph margins can be implemented with Before/After paragraph spacing; any colored background will not extend into these margins. To effect background color you must use paragraph shading, but that only applies to the line height. To control padding, you must adjust the line height and/or apply a top/bottom border with the same color as the background. For example, for a single line of text I set the line height = at least font size (12 pts) plus 4 pts (to 16 pts). This added a top, colored, padding. The only way to extend the colored background below the text is to add a bottom border of the same color as the background, 1 pt achieved the same (visually) bottom padding as top padding.

Line Height, aka Line Spacing

Line height is perhaps the worst example of the built-in typography of Word. The built-in value for each style is “Single”. In body text especially this makes for lines that are too close together. I prefer to change it to “At least x” where x is 2 points more than the font size. For example, for Adobe Garamond 11 pt, the line spacing is “at least 13 pts”.

Unfortunately, as many styles are based on Normal, when you change the line spacing for Normal, it is automatically changed for others. And for some of these “at least 13 pts” is not appropriate: Header, Footer, Footnote Text, all the TOCx styles, all the Heading styles. You will have to change the line spacing for each of these, usually back to “Single.”

Avoid setting line spacing to “exactly” because while that works fine for text, it ruins images.

Useful Microsoft Word Techniques

Another thing to correct in Word is its built-in automatic increase in line height to accommodate superscripts and subscripts. The best way to stop this is with the Option “Don’t add extra space for raised/lowered characters” which can be set on the Compatibility tab of the Options dialog box (accessed with menu Tools, Options).

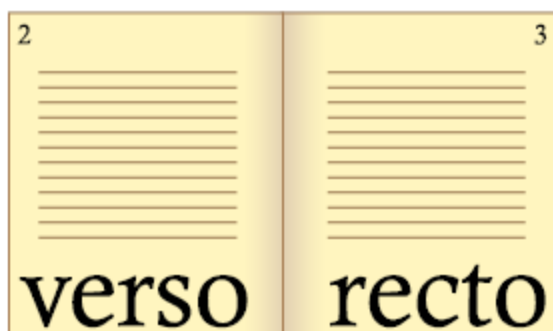
Indentation

The built-in tab stop is 0.5”, which I consider too much for indented text lines. I prefer to use 0.3” and 0.6”. Be sure to change the default tab stop. And shame on Microsoft for calling indentation “indentation.”

Recto, Verso, and Duplex Printing

I recently worked in an office that had printers capable of duplex printing, i.e., printing on both sides of a sheet of paper. This can sure save paper. It also offers design possibilities. You may want to design documents differently to accommodate duplex printing. For example, you may want the first page of each chapter or section to print on the front side so that as the reader turns pages, each chapter or section begins on the right hand page. You may want to have different headers and/or footers on each side.

Two words are used to refer to the two sides of the page. *Recto* refers to the right-hand page, *verso* refers to the left-hand page. See the following diagram.



Note that in duplex printing, recto is the front of the paper sheet and verso is the back of the sheet.

Use menu File, Print Preview for its ability to present pages in a 2-up format, ideal for proofing a duplexed document. Use the Print Preview toolbar to select the desired multiple page format.

You can specify headers and/or footers differently for recto and verso with the Page Setup dialog box: on the Layout tab, select Different odd and even. You can specify that a page is recto or verso by inserting a section break as even page (verso) or odd page (recto). Note when viewed with Word, a blank page inserted automatically to force such a section break does not appear, you can only tell by the page numbering.

Microsoft Typefaces

The following is excerpted from www.aeonix.com/comntypo.htm :

A note about Helvetica and Arial: These two typefaces are called analogs of each other. Helvetica was created in the early 1950s by a designer at the Mergenthaler-Linotype company for use with their

Useful Microsoft Word Techniques

proprietary typesetting equipment. Eventually, Helvetica was digitized and licensed for use with computers and laser printers. There is a long history of typefaces designed for one proprietary typesetting machine being adapted by competing typesetting machine manufacturers to run on their proprietary equipment. (You could not, for example, buy a typeface for a Linotype to use on a Compugraphics typesetter. They were simply incompatible.) In the era of desktop publishing and general purpose computers, the typefaces from many companies were digitized for use with Macintosh and MS-DOS/Windows computers. Since most libraries had proprietary versions that duplicated competitors typefaces, these have reached us as very similar (to identical) typefaces with different names. Arial is the Monotype Company's analog of Linotype's Helvetica. A letter-by-letter comparison will show these typefaces have almost no significant differences. Microsoft contracted with the Monotype Company to prepare several analog typefaces to be distributed with the Windows software to replace Helvetica, Palatino, Avant Garde and others. The result was Arial, Book Antigua, and Century Gothic—designed to be direct replacements for the originals and to have the exact same character widths, etc.

Using a Baseline Grid

Print typographers have long designed documents so text aligns with a vertical grid—on every page. You can do this with Word documents and thereby improve the page's vertical rhythm. Start by establishing a baseline height, then specifying line heights, margins, and padding to maintain that height over the variety of elements that compose the content.

Achieving a baseline grid with Word is tricky. While text is sized in points, measurement units can be inches, points, centimeters, etc. It feels right to use measurement units in inches as we generally work with paper sized 8.5 x 11 inches. By default, line height and paragraph spacing is done with points. but indentation is usually done in inches. This last can be configured with the measurement unit setting on the Options dialog box (accessed with menu Tools, Options). The challenge is to not be limited by the built-in values, e.g., before paragraph spacing of 6pt. It might make more sense to use 3pt or 9pt, depending on your grid—you just have to type the entire value instead of selecting one from a list.

Keep Text Together

How to keep a text string together so that the word wrap does not split it in the middle. Typically such a string includes spaces and hyphens, e.g.,

Susan J. Dorey, Ph.D.
December 25, 2008
12-25-2008
123-456-7890
state-of-the-art

The wrong solution is to insert a line break before the string. This is wrong because eventually the string will be positioned in the middle of the line, where you do not want the break to occur.

The right solution is to use non-breaking spaces and non-breaking hyphens in place of normal spaces and hyphens. Non-breaking characters connect the text together into a single undividable string and let it all automatically shift to the next line when there is insufficient space on the current line.

Useful Microsoft Word Techniques

Non-breaking space: [Ctrl + Shift + Spacebar]

Non-breaking hyphen: [Ctrl + Shift + Hyphen]

Get Rid of Blank Page After a Table

Sometimes when the last content of a document is a table, there is a final blank page. This is because Word always places a paragraph mark (¶) after a table. When the table fills the page, that final paragraph mark is forced to the next page. You cannot delete it. But you can restyle it so it will fit on the same page with the table—and then there will be no blank page after the table.

1. Resize the paragraph mark to 1pt (a font format).
2. Clear spacing before and after the ¶ (a paragraph format).
3. Set line spacing to single (a paragraph format).

PARTS OF A DOCUMENT—LAYOUT

Please see the first chapter for another presentation of this information. See also the chapter on Footnotes and Endnotes.

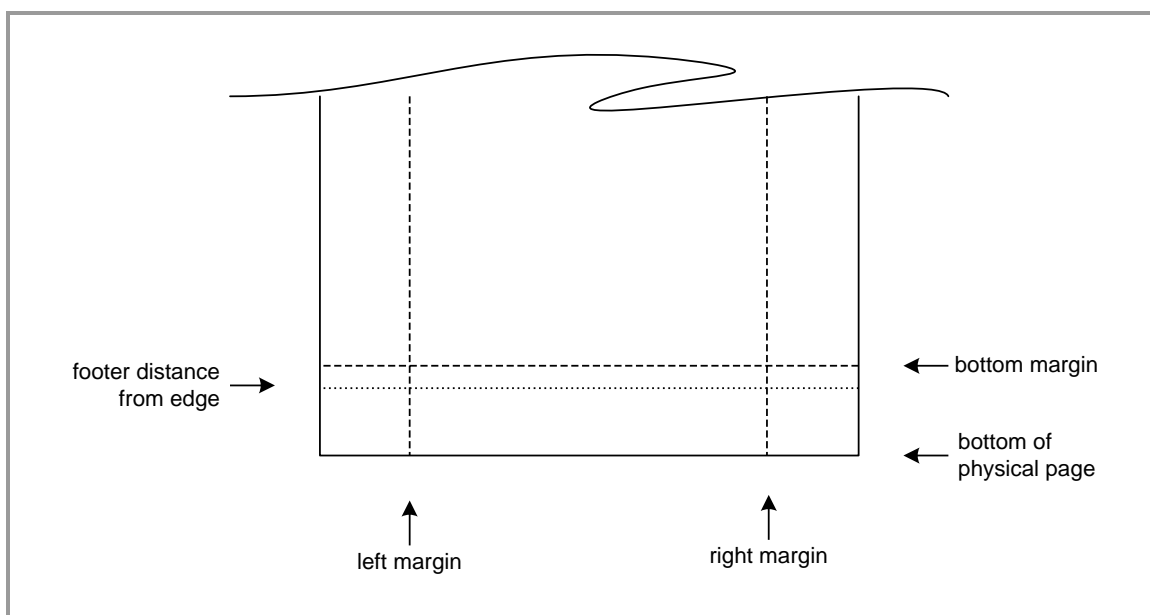
When you begin to create a document, you simply type. Text word-wraps at the end of lines. Text flows to new pages when the number of lines exceeds the page size. All is well. Except . . .

Some parts of a document require special action to access them:

- Page *headers* and *footers* are accessed by menu View, Header and Footer. You can also access them with the mouse in Print Layout view by double-clicking in the header/footer area.
- *Footnote text* can be accessed by the mouse, but not the keyboard, and only in Print Layout view.

Sections are used to allow some pages to have different headers/footers and/or orientation and margins. When you change some text from one column to two columns, the two columns are created within a new section. You typically create a new section starting on the next page by inserting a “Section Break Next Page” with menu Insert, Break.

Margins



Margins establish a maximum width and height of the page's content. The area above the page content is called the *header*, the space below is the *footer*. These areas can have their layout constrained in a few ways. Footnotes are placed immediately above the footer area.

Page footers are located at the bottom of the page between the physical bottom and the bottom margin. It is visually nice to have at least 0.2" between those two lines. This can be controlled by the actual height of the footer text and the property footer distance from edge.

For example, when the bottom margin is 0.9" and the footer distance from edge is 0.4", there is 0.5" to hold the actual content of the footer.

Note that the actual height of a footer or header is automatically increased to contain the contents. For example, if you add lines to the footer, i.e., you increase the height of the footer contents, it will push the top up to keep the space between the lowest line and the physical bottom of the page.

Of course, the same relationships exist in the header.

Headings at the Top of the Page

I have all this time defined my heading paragraph formats with a top margin (spacing before). This renders blank space above the heading text. But when the first paragraph on a page has a format with a top margin (spacing before), that space always appears, making the visual margin even bigger. I want to suppress it.

I found the solution:

- Options: suppress extra line spacing at the top like word 5.x for the Mac.
- Options: suppress space before after a hard page or column break.
- change Heading 1 style, paragraph format: 0 spacing above, line height = 38 pt (the 14pt of the font and the 24pt that was space above)

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The only down side for this solution is when the heading is longer than the line length and word wraps. Then it looks awful. The solution is shorten the heading.

Note: Word does suppress spacing above for Heading 2 and Heading 3 styles, at least in the document I am working with now. But not for text with the Heading 1 style.

Headers and Footers

Text and/or graphics can be automatically placed at the top and/or bottom of each page in a document. Publishers call this a running head and running foot. Word calls them header and footer.

The header is an area at the top of the page, it extends from the top edge to a vertical distance specified by the top margin; the area available for text extends from the header margin (Page Setup, Layout tab, Headers and footers group, distance from edge) to the top margin. Similarly the footer is an area at the bottom of the page, it extends from the bottom edge to a vertical distance specified by the bottom margin; the area available for text extends from the distance from footer margin to the bottom margin.

The area for a header will expand downwards vertically to accommodate its contents. The area for a footer will expand upwards vertically to accommodate its contents.

While the body text will touch the bottom edge of the header area, it normally does not touch the top edge of the footer area. One exception is footnotes which are placed directly above the footer area.* Body text is flowed to the next page so that some space separates it from the footer area. You can use Before Paragraph Spacing on the footer content to separate it from the body text. This will work nicely even if you use a horizontal line at the top of the footer content (as I do), the Before Spacing is applied on top of the line.

The default is a header or footer that applies to all pages. There are built-in variations: You can have header/footer be different for odd and even pages. You can have it be different for the first page (for example, in some kinds of documents it is common to not use a footer on the first page). When your document has more than one section, each section can have a different header/footer; this is useful when you use sections to switch between portrait and landscape page orientation. See also *Designing Page Headers and Footers* on page 48.

FORMATS

Page Headers

These are specific to sections. Remember when you insert a two-column section, it will affect the page setup for future pages: top margins and space between header and page edge. Pay attention to the sequence of your editing. This is because by inserting that section, you end up with three

* I am mystified by why this happens. It has happened only once, and I have lots of examples where it did not happen. The inconsistency is maddening.

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sections: the one-column section before the two-column section, and the one-column section after the two-column section.

If you insert a two-column section before designing the header, when you do redesign the header, apply it to whole document, otherwise it will only apply to the active section.

If you do not explicitly apply a header redesign to the whole document, you will find it is applied to only one section but not others.

Line Height

Wondering about the line height unit of measure. I know of “points,” what else is available? What I really want is the flexibility of CSS.

Googled: The use of “Multiple” will provide the correct paragraph spacing (50% or 75%) irrelevant of font size.

So Line spacing = Multiple and value of 1.35 represents a line height of 135% of the font height.

Note: some say Line Spacing is the space between the lines of each paragraph. That concept does not exist in typography, instead it is line height. I added a box to the text to illustrate Word’s line spacing of 1.35.

Here is Single line spacing
And here is the next line (paragraph), notice the space above the text.

Here is line spacing “At least 16pt” on a type size of 10pt.
And the next line (paragraph). The two lines’ boxes touch at the setting “at least 14pt.”

I can see from the line boxes that, indeed, line spacing sits above the text; this is not the way typography thinks of it. And not the way that CSS works.

For now, I’ll stick with “at least” and points; actually, you cannot do percentages with “at least.”

What about space before? It applies to the paragraph, not the line.
This is the second line (actually a paragraph), the space before value is “1 pt”
if I use a line break and not a paragraph break, I can see there is no space between the text lines.

It is not possible to set space before as a percentage.

TABLES

Perhaps the simplest way to layout text in a grid is with a table. Use column dimensions, inside margins, and text alignment to create the desired layout. Use borders or not; the default is borders on, but they are easily turned off (with dialog box “Borders and Shading” accessed from menu Format, then set Borders Setting = None).

For me the downside of using a table this way is that the grid lines are visible in Print View, even when there are no borders. (The grid lines can be made invisible in Normal View only.) There are

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other challenges in using tables this way, principally page breaks, spacing between paragraphs, and the inability to set keeps (keep with next).

Correcting Borders in Tables Copied From Access

I often copy the contents of an Access datasheet to the Clipboard and then paste it into Word. This creates the desired table, however it has Access' record and column format. That is, each cell has its own border and the table has its own border.

What I want is to impose my own table format, which is single borders for the cells and a double border for the table. This is impossible to do by removing the table borders, then reapplying them.

And the envelope please: (1) convert the table to text with tab delimiter, then (2) convert the text to table. Now I can apply my own table borders.

Breaking Rows

I used single-celled tables to provide a border around blocks of text. I separated the tables by 2–3 empty paragraphs. I discovered that a table would not break across a page when its content exceeded the space available, instead it shifted its position down to the next page. The table was flagged to allow row to break across pages, but it would not. This was not what I wanted. What solved the problem:

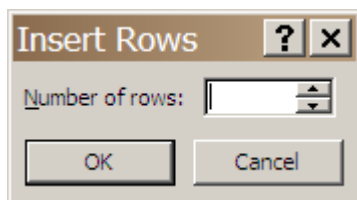
- Remove from all the text in the row: Widow and orphan control.
- Remove from all the text in the row: Keep with Next

Nested Tables: Tables Within Tables

Repeating heading rows do not work for inner tables, especially when the outer table row breaks across pages. This is a “feature” according to Microsoft. If you need a heading row in an inner table to repeat, you must do this manually. Of course, this requires manual adjustment when the content changes and the table breaks across pages in a different place.

Inserting Table Rows

It is easy to insert one row at a time into a table. The challenge is inserting many rows at a time. This comes into play for me when I have 48 rows in one table that I want to insert into a second table that has 5 rows. The easiest way to do this is to use a macro that opens the Insert Rows dialog box:



First create the macro in the VBE window:

```
Sub InsertTableRows()
```


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```
' opens the Insert Rows dialog box
Application.Dialogs(wdDialogTableInsertRow).Show
End Sub
```

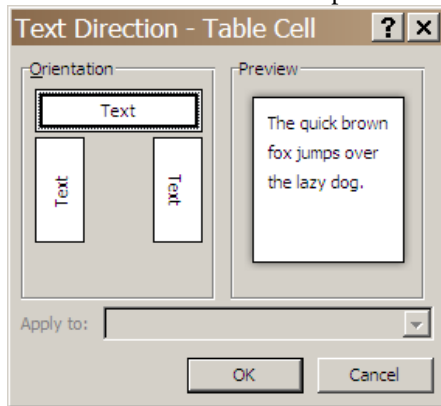
Save the Normal template file. Close the VBE window.

Then assign the macro to a shortcut key. Use menu Tools, Customization menu to open that dialog box, then select [Keyboard] to open that dialog box. Assign a shortcut key. I used [Ctrl+Alt+I].

Once you have the macro and the shortcut key, you can use them over and over. Just put the cursor in a table, press the shortcut key, enter the number of rows, and [OK] and you are done.

Rotating Text in a Table Cell

Use menu Format, Text Direction to open the dialog box. Text Direction is also an item on the context menu. When selected it opens a dialog box:



Each click of Text Direction cycles you through the four directions: left, right, bottom. You cannot turn the text upside down.

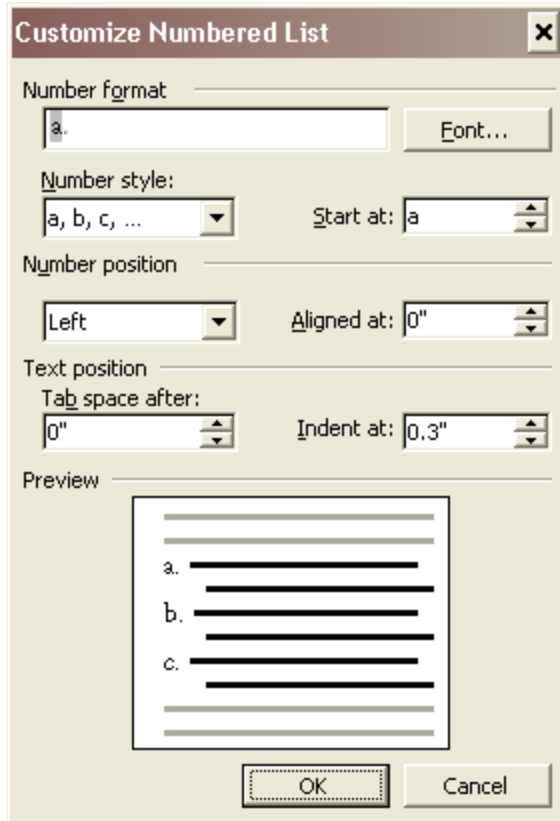
Autonumber Table Cells

There are times when you want the rows in a table to be automatically numbered. Such a table has a heading row, the non-heading rows have a cell that holds a number that is set automatically. Such an autonumber makes it easy to reorder the rows while maintaining strict numbering.

The row number can be formatted without a tab character and with without or a final period.

The solution is to (1) apply a list style to the number column (exclusive of the heading) and (2) define the list style as a numbered list. The “Number format” can include a final period or not, your choice. Set “Tab space after” to zero to block any tab character in the cell.

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When you are done with the table, i.e., will not be reordering the rows, you can convert the autonumber to plain text so it will not change. The solution: In the Visual Basic window (open with [Alt+F11]), open an Immediate window (with the View menu), then type:

```
ActiveDocument.ConvertNumbersToText
```

This works.

VIEWS

There are several things that impact the appearance of a document:

- View: Normal, Print Layout, etc.

- Zoom

- Text Boundaries

- Formatting Marks

- And maybe a few more that I rarely encounter

I think you can control the appearance of a document when it opens by getting it to look that way just before saving it.

However, this seems not to work reliably. It seems to be the case that if you open a document, change only its zoom, view, formatting marks, etc., then save it Word does not actually save it. The trick is to fool Word into thinking you changed the content: so enter a character then remove it before the save.

My preferred appearance of a formal document is: Print Layout view. 100% zoom, no text boundaries, no formatting marks.

How To

Use Built-in Shortcut Keys

There are some shortcut keys which make my work easier:

[Ctrl+F1] closes the Task Pane (the Task Pane holds Styles and Formatting, Help)

Revision Tracking

Be careful about publishing documents with revision tracking on. While prior revisions are normally hidden, they are still present and can be made visible—and disclosed unintentionally.

Revision tracking also causes large file sizes.

Turn off revision tracking when it is no longer necessary. Remove revisions: explicitly accept or reject all revisions, then save the document.

Always check to see if a document you receive from others has revision tracking turned on. Look in the status bar. If TRK is visible, then revision tracking is on; if TRK is dimmed, it is off.

Copy Excel Data to Word

Some projects may involve including data for publication when such data is in the form of Excel files. Such data can be copied into a Word document in such a way as to most easily fit the standard formatting.

1. Open the file in Excel. Run the macro *ChangeFont**, which changes the font to Arial 9pt, unbolds the heading row, and removes the underscore characters from the heading row.
2. Sort file, if necessary, into table key order.
3. Remove any shading from data cells (heading cells may remain shaded).
4. Resize columns as necessary to facilitate pasting into a 6" line width (portrait). Increase row 1 height as necessary to keep all text visible. If the file cannot be compressed that narrow (even with font size 8pt), then paste it into a 10" line width on a landscape page.
5. Select the desired rows and columns; omit Version column. Copy the selected data to the clipboard.
6. In Word, position cursor at the desired location for the data.
7. Paste the data as **formatted text** with menu Paste, Special. It appears as a Word table.
8. Apply standard table style to the data table with macro *FormatTable*.
9. Adjust column widths for a balanced appearance. Be sure to turn off any **preferred width** for the table. Use menu item Table, Table Properties to display that property; it may take more

* If you do not have this macro, you can create it easily by recording the steps (use menu Tools, Macro, Record New Macro).

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than one try to accomplish unchecking it, and don't combine that property change with any other one (Word acts up).

10. With table selected, make cell margins the same as the whole table: use menu item Table, Table Properties, select Cell tab, then select [Options] to open "Cell Options" window. Select <same as the whole table> so a check mark appears. Select [OK] to close this window, then select [OK] to close "Table Properties" window.

When replacing an old table with a new one, it's best to remove the previous table before pasting in the new one.

Visio Diagrams in Word Documents

Copy Visio Diagram to Word Document

All Visio diagrams are created and changed in their own files. Do not edit a Visio diagram from within a Word document; just because you can doesn't mean you should.

After a desired Visio diagram is created/changed, it can be copied to Word. This is a simple matter of selecting the Visio diagram (or a part of one) and copying it to the clipboard, then use Word menu Edit, Paste Special to paste it as a **picture**. Be careful not to paste it as a Visio object, which makes the file size larger and makes it possible to edit the diagram without doing so in the master Visio file.

Afterwards, apply a border according to the style sheet.

You have three choices for pasting Visio drawings into a Word document, and not surprisingly they affect the Word file size differently. In my test with a drawing that fills one page, I found the following file sizes:

Visio file	29KB
Visio drawing in Word as OLE	47KB
Visio drawing in Word as Picture	28KB
Visio drawing in Word as Picture Metafile	27KB

On the basis of size, I would opt for pasting as a Picture; I never want anybody else to take advantage of the OLE functionality whereby the editor can double-click on the diagram in Word and open a Visio editing session. However, Pictures are problematic: they are "shapes" with anchors, are anchored to a range of text, and are free-floating. This can be overcome by converting them to an "inline shape" with the menu Format, Picture, then on the Layout tab selecting "In line with text."

You can use a macro to convert a Visio picture into an inline shape. Word 2003 now has a setting (Tools, Options) to insert images as inline with text. This eliminates the need for the macro.

I recently (June 2006) had the experience that a screen shot edited in Visio and pasted into a Word document printed correctly on a Toshiba printer but not on a small HP LaserJet. On the latter the original screen shot image was flipped. The solution was to paste the image as Picture (Enhanced Metafile). My home HP LaserJet 1300 has no such problem.

Sometimes a Visio drawing is distorted when the Word document is converted to a PDF file. This seems to happen when it is pasted as a Picture but not as a Picture Metafile. If you publish a Word

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file with Visio drawings as a PDF be sure to double check the drawings afterwards for distortion. If it is present, you will have to paste the drawings with a different format.

What works for me now (with Word 2003, Windows XP, and Acrobat 7) is to paste Visio drawings as Picture (Windows Metafile). It is converted to PDF correctly without losing visual quality.

Place Visio Diagram in Word Document

There are different approaches to placing wide Visio drawings in a portrait-oriented document whose paper size = letter:

1. In Word, shrink the drawing to fit in portrait orientation.
2. Paste the drawing, then rotate it. This choice can have a border applied, but it is done with the “Format Picture” dialog box.
3. In Visio, rotate the drawing before copying it. This choice seems to affect the conversion to PDF: you must set PDF conversion setting to rotate pages individually.
4. In Word, insert a landscape section and paste the drawing into it.

Using Pictures

Word distinguishes between pictures and drawings. *Pictures* are images created outside of Word, including those created by PrintScreen and captured in the clipboard. *Drawings* are images made in Word with the drawing tools. Drawings are also called shapes.

Graphics can be inline or floating. In your Word document there are multiple layers, including a text layer and a graphics layer (sometimes called a drawing layer). Text and objects that act like text, such as *inline graphics*, reside in the text layer. By contrast, a graphic that resides in the graphics layer can be moved independently of the text. This is a *floating graphic*. You can change a graphic from inline to floating by changing the text-wrapping style; any wrapping style other than “In line with text” will create a floating graphic.

An inline picture can be rotated: use the Rotate tool on the Picture toolbar. Once rotated, placing a border works differently.


Floating graphics have an anchor symbol and a green rotation handle at the top.

The default layout (wrapping style) for inserted pictures is specified on the Edit tab of the “Options” window accessed by the menu **Tools, Options**; it is labeled “Insert/paste picture as”. The value is chosen from a list box. If the layout you want for a particular picture is not the default, you will have to change it for the individual picture after insertion.

Commonly pictures are inserted between paragraphs without word wrap. When the picture is the only content of the paragraph it is logically “inline”. Caution when controlling the paragraph line spacing: if it is set to “exactly” some number of points, the graphic will only show that many points—in other words it will be truncated. If you specify a paragraph style with line spacing as “exactly”, change it to “at least” so the graphic will show in its entirety.

Floating graphics, i.e., images in the graphic layer, are not visible in Normal View. Switch to Print View to see and access floating graphics.

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A floating graphic can be repositioned, resized, cropped, rotated, given a border, and its text wrapping property changed. First you must select it. To reformat a floating graphic, first make it visible by setting Print View, then open the Drawing Toolbar (with menu View, Toolbars). The Drawing Toolbar is placed near the bottom of the Word window. In the toolbar click the  button to activate the Select Object tool, the pointer icon will change to a 4-headed arrow. Click the graphic/image to select it. When a graphic is selected, its appearance changes: an anchor icon appears as well as small circles at each corner and edge midpoint, and a green rotation handle. In addition the Picture Toolbar automatically opens.

Once a floating graphic is selected you can change its formatting by using either the Picture Toolbar controls or the “Format Picture” dialog box (accessed from menu Format, Picture). If you want to reposition the graphic, use the keyboard arrow keys to nudge it in any cardinal direction. If this doesn’t provide fine enough control, increase the zoom (with menu View, Zoom). If this still isn’t fine enough, use the “Advanced Layout” dialog box accessed from the “Format Picture” dialog box.

Use Tab Stops

A tab stop is a horizontal position on a line where a tab character can align the text that follows it. Tab stops are relative to the left page margin. A tab stop also has a text alignment (as left, center, right, and decimal) and an optional leader (as periods, dashes, or underscores).

Tab stops and tabs are used to align text by pressing the [Tab] keyboard key. Tab stops are paragraph-specific properties, i.e., they apply only to the paragraph in which they are defined.

There are two kinds of tab stops: specific tab stops* and the default tab stop. The initial default is 0.5 inch. Every time you press the [Tab] key, you insert one 0.5 inch tab stop. The specific tab stops override the default stop. For example, if you have one specific stop at 0.3 inch, the first time you press the [Tab] key, you insert a tab at 0.3 inch, the second time at 0.5 inch, the third time at 1.0 inch. Styles can have specific tab stops.

New documents have default tab stops. These tab stops are used until a tab stop is set explicitly in a paragraph. The default tab stops can be removed. New documents also have the specific tab stops defined for the styles.

Tabs are initialized for new documents with the settings in the Normal template. If you plan to use the same settings for many documents, it can be convenient to change Normal. You can always change tabs in individual documents.

You can set a tab stop in several ways:

- For the paragraph with menu Format, Tabs. Use the “Tabs” dialog box to set a tab stop.
- For the style with menu Format, Styles and Formatting, which opens the eponymous pane, then use dropdown menu Modify to open the “Modify Style” dialog box, and set the tab stops in the “Tabs” dialog box.
- With the Horizontal Ruler (visible with menu View, Ruler). There is a tab stop button in the left corner of the ruler. When you click it, its appearance changes to reflect text alignment. A tool tip will appear (if you wait long enough) to explain the setting when the pointer is hovered

* Microsoft calls these manual tab stops. I think that name is misleading, since tabs are set manually.

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over the button. First position the insertion point cursor just in front of the text to be tabbed. Then set the ruler tab stop button to the desired alignment. Then click at the position in the ruler—an icon will appear at that position that matches the tab stop button.

You can remove (clear) a tab stop in several ways:

- For the paragraph with menu Format, Tabs. Use the “Tabs” dialog box to clear one or more tab stops.
- For the style with menu Format, Styles and Formatting, which opens the eponymous pane, then use dropdown menu Modify to open the “Modify Style” dialog box, and clear the tab stops in the “Tabs” dialog box.
- With the Horizontal Ruler (visible with menu View, Ruler). Click the tab stop character in the ruler and drag it off the ruler—down into the document.






You can reposition a tab stop:

- With the “Tabs” dialog box: clear the original tab stop and add the new one.
- For all paragraphs having the same style, change the style’s tab stop.
- With the Horizontal Ruler: If you want to change the tab stop for more than one paragraph, select all the desired paragraphs, otherwise just position the insertion point cursor in the paragraph. On the ruler, position your mouse on the current tab stop and click and drag it to the new position.

You can color a tab leader differently than the paragraph text: For a particular tab stop set the leader with dialog box “Tabs,” then select the leader in the paragraph and apply a different text color with the dialog box “Font” (accessed from menu *Format, Font*).

Tabs must have space available on the line in order to work properly. For example, if the tab is placed at 3" and there is no tab stop defined after that point, then the tab has no effect.

Tab Symbols in the Ruler

	left tab	text is left-aligned at the position of the tab
	center tab	tab is center-aligned at the position of the tab
	right tab	text is right-aligned at the position of the tab
	decimal tab	numbers with decimal point are aligned at the position of the tab
	bar tab	inserts a vertical bat at the tab position

Aligning a Column on the Decimal Point

You create a table and populate it, one column holds numbers. Some of these numbers are whole, some have decimal places. When you are done you realize the column will look much better if the numbers are aligned on the decimal point, as in the following example.

<i>Pay Date</i>	<i>Period End Date</i>	<i>Hours</i>	<i>Gross</i>	<i>Net</i>
8-31-2012	8-25-2012	40	2200.00	1429.77
9-7-2012	9-1-2012	38.75	2131.25	11391.89
9-14-2012	9-8-2012	32	1760.00	1187.19

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How to do this?


1. Set paragraph alignment in the number cells to left. Remove any tabs in the cells.
2. Make the horizontal ruler visible.
3. Click on the tab indicator in the left corner of the ruler, until you see the Decimal tab option appear.
4. Click on the ruler where you want the decimal tab to appear in the column of numbers.
5. The cells should automatically realign.

Split Justification

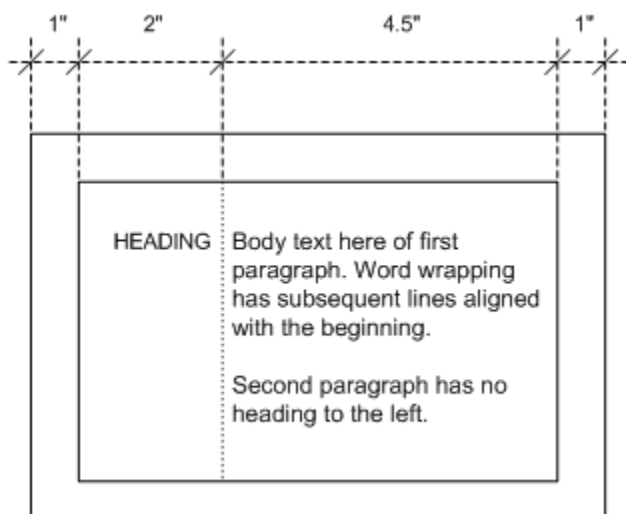
I use *split justification* to refer to a line of text where some words are left-aligned and others are right-aligned. See the example below.

left-side text

right side text

It is done by left-aligning the paragraph and inserting a right-aligned tab stop before the right-justified text; best to create the tab stop before using it. The tab stop appears in the ruler as a  character, you can drag it to the desired location. This can also be done with a two-celled table, but that is not as neat.

Heading in the Margin



There are at least two ways to place a heading in the margin: (1) using a two-column table and (2) the approach described here. Certainly the first method is easier, but in documents that will be scanned into a repository, that yields unreliable results.

For option (2) a paragraph style is defined so that the text sits to the left of the main text and is aligned on the baseline of the first text line following.

Hanging indent with tabs. This means using a special paragraph style for the first paragraph with a heading. I'll call it FirstPara. Given the preceding diagram as an example of margins and alignments, make the following settings:

- left page margin = 1"
- right page margin = 1"

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- style Normal left indent = 2”
- new paragraph style FirstPara based on Normal, left indent = 0”, hanging indent = 2”, tab stops: right at 1.7”, left at 2”
- new character style HeadText font size = smaller than Normal

Then in the text apply the style FirstPara to text:

[Tab]HEADING[Tab]Body text here. Word wrapping . . .

After which apply the style HeadText to HEADING. Apply style Normal to the second and following paragraphs.

The limitation of this approach is that if the HEADING requires two lines, then the first line of the body text will align vertically at the baseline of the second heading line.

Align Numbers in Lists and Headings

Numbered lists typically have the number followed by a period and the text of the list item set off to the right by some fixed space. The numbers are aligned with the left margin, although they may be shifted right by some amount. When the number of list items exceeds 9, the period following the number seems to visually jump around when the list is looked at as a single thing. For example:

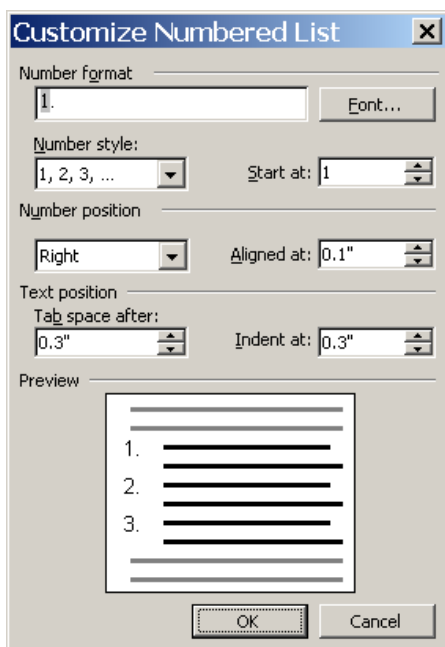
- 1.
- 2.
- 9.
- 10.
- 25.

Sometimes I want the number aligned on the period so that the space between the number and the list item text is an even column:

1. one
2. two
9. three
10. another
25. and another

This can be done as follows. Use menu Format, Bullets and Numbering to open that dialog box, select the numbered list style, then select [Customize] to open the “Customize Numbered List” dialog box. Set Number position = Right, Aligned at 0.1”. This looks fine when there are less than 10 items. What about two digits? It still looks good.

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Can the same idea be done for numbered headings? There are two ways to number headings: (1) manually so the number is a part of the text and (2) automatically using a style with automatic numbering. I prefer option #1.

Let's say heading numbers look like:

- 1. text
- 1.1 text
- 1.1.1 text
- 1.2 text
- 2. text
- etc.

I want it to look like:

- 1. text
- 1.1 text
- 1.1.1 text
- 1.2 text
- 2. text
- 4. text

This is effected by

- (1) using a style with tab settings:
 - 0.1" aligned on decimal, 0.4" aligned left
- (2) keying two tabs, one before the number and the second before the text.

What will happen in a TOC? The TOC styles may need similar adjusting.

Print a Range of Pages in a Multi-Section Document

The following text was written as user instructions.

Useful Microsoft Word Techniques

PRINTING INSTRUCTIONS—PLEASE READ

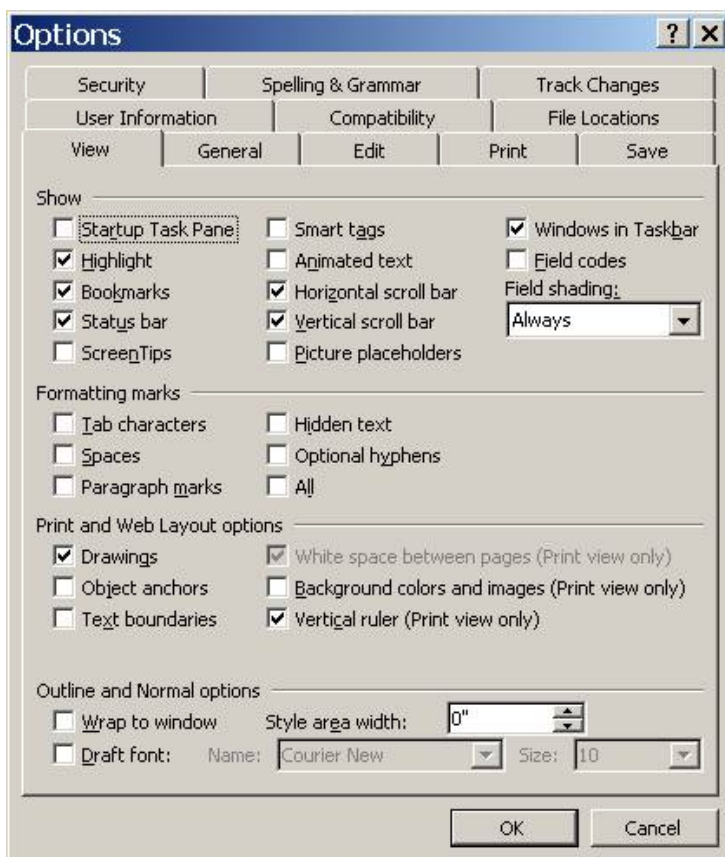
The *Operations Guide* is a Microsoft Word document with many sections. Printing the entire document is simple (in the Print dialog box you select the default Page Range = All). However printing a lesser range of pages requires that you specify the page range by section and page number, for which you may need the detailed instructions that follow.

You specify the page range like: **p2s2-p5s4**

Where **p** precedes the page number and **s** precedes the section number.

You find the **p** and **s** values in the status bar (located at the bottom of Word's window).

If the status bar is not visible, you can make it visible with the Options dialog box opened by menu Tools, Options.



On the View tab in the Show group, check the Status bar checkbox. Select [OK] to apply the change and close the box.

At the left side of the Status Bar is the text you need to determine a page's number: It presents:

Page x Sec y

where:

x is the number of the current page (in its section) in Arabic numerals

y is the number of the section in Arabic numerals

Be sure you determine the exact section numbers of the pages to be printed by positioning the cursor at the beginning of the first page to be printed and again at the end of the last page to be printed. Caution: text in two columns is always in a section of its own, so the single-column text that precedes it and follows it are in different sections.


Useful Microsoft Word Techniques

The page range example at the beginning, **p2s2-p5s4**, specifies the pages to be printed start with page 2 in section 2 and end with page 5 in section 4. This covers the three pages of the Table of Contents and the one page List of Figures.

[a later addition] Note: You may be surprised by the section numbers. Say you started with a document with a title page, TOC page, and two chapters, all of which start on a new page. You handle the headers, footers, and page numbers by making each of these four page groups a section. So now you have four sections. Then you insert a TOC in a two-column format. You also insert a TOC in each chapter, making for a total of 3 TOCs. Because switching to the two-column format involves adding two more sections, now you have a total of $4 + 2 + 2 + 2 = 10$ sections. Surprise!

Copy Formatting

Within a document you can copy formatting from one selection to another. Some formatting is easier to copy than others!

- The easiest tool for copying formatting is [F4]. It repeats the previous action, be it entering text or formatting it. In order to take advantage of it, you have to sequence your work carefully.
- Format Painter is a tool that copies text and paragraph formatting from selected text to other text. Format Painter has an icon on the Standard toolbar: . You can add this tool to any other toolbar of your choosing for ease of access. To use it: select at least once character of text whose format you want to copy (one character is sufficient but it does not hurt to select more), click the Format Painter icon which causes the mouse pointer to change shape to match the toolbar icon, then sweep it (holding the mouse button down) across the text whose format you want to change.
- Copying borders or shading is more difficult. Best to start with the Tables and Borders toolbar open. Select the text/table cell whose color you want to copy. Open the Colors dialog box; this may take several steps depending on if you are copying text color or border/shading color (text color can be copied easier with Format Painter, see above).
 - 1) Open the Colors dialog box (see Figure 1). The color of the selected row should already show in the dialog box.

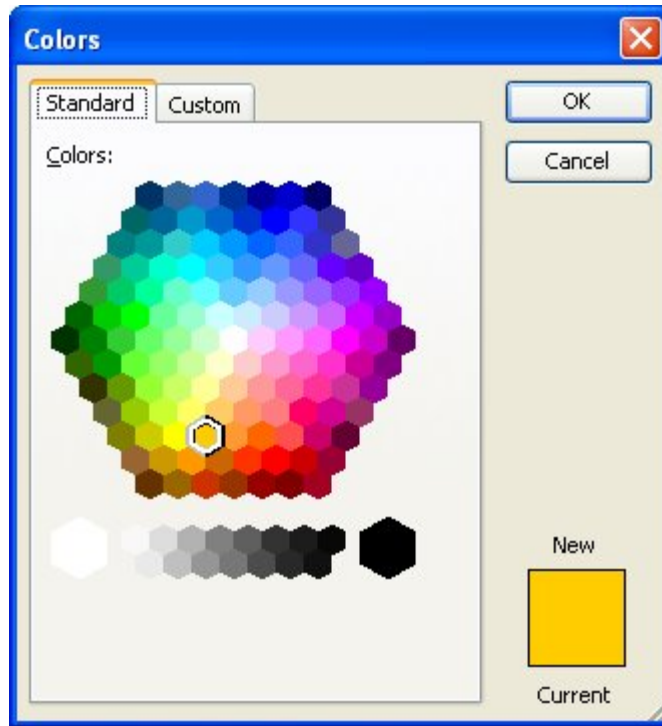


Figure 1. The Colors dialog box.

- 2) Click [OK]. (Note that you made no changes in the dialog box; you just clicked OK.)
- 3) Select the other rows in the table whose background color you want to change.
- 4) Click on the Shading Colors tool on the Tables and Borders toolbar. Your desired color is applied to the selected rows.

Formatting a UI Button

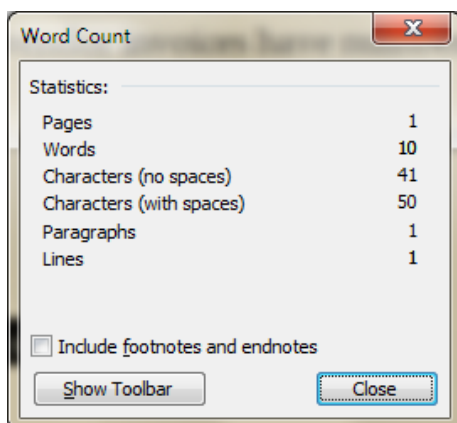
When documenting software it is common to refer to a UI button. Lately I've adopted the practice of referring to Text on the button by formatting the text that appears on the button with a box and shading (using the Borders and Shading dialog box) so that it looks like a button (without any of the 3D effects). I use one non-breaking space on each side of the text to simulate padding. I also use a non-breaking space between words to keep wordwrap from splitting the box across two lines. The height of the box is the same as the height of the line. Which is a tad unfortunate, especially when there are boxes on consecutive lines that touch each other. Could this be done with a Text Box? No, for many reasons.

The example in the previous paragraph uses a simple Box border setting. You might want to use the Shadow setting with a dark gray line to get a more 3D effect. You could also create a character style to draw the border and apply the background color.

Word and Character Count

I need a way to count characters in selected text. Menu Tools, Word Count provides the answer. If text was selected, the results reflect the selection, otherwise they reflect the entire document.

Useful Microsoft Word Techniques



Mix Portrait and Landscape Pages

Do not shy away from trying this, it is really not hard. What a mixture of portrait and landscape pages **will** do is affect any page footers and headers you may have. If you will be using those, the easiest approach is to delay placing them until the landscape pages have been placed into your document.

Sections

The basic thing to understand is that you cannot comingle portrait and landscape pages in the same *section*. Thus, when you want to change from one orientation to another, you must first insert a section break next page (with menu Insert, Break).

Possible document structures:

section 1 portrait
section 2 landscape

section 1 portrait
section 2 landscape
section 3 portrait

section 1 portrait
section 2 landscape
section 3 portrait
section 4 landscape

Sections are bounded by section breaks and start or end of the document:

start of document
section 1 portrait
section break
section 2 landscape
end of document

start of document
section 1 portrait
section break
section 2 landscape
section break
section 3 portrait
end of document

start of document
section 1 portrait
section break
section 2 landscape
section break
section 3 portrait
section break
section 4 landscape
end of document

Page Orientation

After entering the section break, you will want to set the page orientation and possibly the margins. Do this with menu File, Page Setup. Be sure to apply the settings to the current section only.

Headers and Footers

So now let's turn to page headers and footers. They are defined at the section level. When there are multiple sections, the page header and footer in each section can be related to those in the previous section or they can be independent of each other, this is controlled by the "Link to Previous" header/footer setting. When the header in section 2 is linked to the previous section, the contents of the header in section 1 will also appear on the pages in section 2.

I have designed documents with fairly complex headers and footers. For example, the header names the document and the chapter while the footer holds the revision date, security level, and page number. If I include the chapter number with the page number, say like "4-2" where 4 is the chapter number and 2 is the page number within that chapter. I will not want the chapter footer to be linked to any other footer. But, if the footer contains only a page number and the pages are numbered sequentially through all the chapters, then I will want the chapter footer linked to its predecessor.

You can see that some page designs require headers be unlinked while footers are linked, and vice versa.

A word here about page numbering. Because page numbers can only be placed in headers or footers, they too are defined at the section level. When writing a document with front matter that is page numbered with lower case roman numerals, you will want to start the main body of the document (that will use Arabic numbering) in a new section. See the chapter here on Page Numbering beginning on page 67 for details.

When you insert section breaks and you use headers and/or footers, you must either enter the contents of the new section's header/footer or link it to that of the previous header/footer. If your page header/footer design is complicated and you already entered the contents in other pages, you may go crazy linking header/footers to previous ones as the sequence in which you link the sections may yield crazy-making results. It is best to avoid this particular circle of hell by (1) not entering the header/footer contents before all the section breaks are in place or, if it is too late, (2) delete the contents before doing the linking, then re-enter them.

You may want to use a different style for text in a landscape header or footer; I always do—I use "HeaderLandscape" and "FooterLandscape." This is especially necessary when tab stops are used: a right-aligned page number on a page with text lines 6" long (portrait) will need a different tab stop than when the text lines are 10" long (landscape).

ORGANIZE DOCUMENTS

A large, complex document needs more organization than a short, simple document. These days the phrase *document set* is often used to refer to a group of several-to-many documents that together address a particular subject for a particular audience. Within a document set the individual documents might be published both individually and collectively (as a single document).

Organization Schemes

Large manuals can be organized as follows:

- One file per chapter.
- One file for the manual title page.

Useful Microsoft Word Techniques

- One file for a consolidated table of contents.
- One file for the index.

A different, perhaps simpler, scheme:

- One file for the front matter including title page, revision history, table of contents, and table of figures.
- One file per chapter.
- One file for the back matter including index.

Designing Page Headers and Footers

Use the page header to identify the manual title, section title (if appropriate), and chapter title. Use the page footer to identify revision date, page number, and perhaps filename and/or confidentiality statement. If there are separate files for each chapter, assign each a chapter number and include it in the heading (e.g., 4.2 or B.2) and page number (e.g., 4-5 or C-4).

If you find a need for sections, consider making them separate manuals. If that is undesirable, then refer to *Using Section Title Pages* on page 65 for details on how to handle them.

Concatenate Multiple Files into One

Use a macro to concatenate the various files into one. See *Assembling Multi-File Document in Word VBA Techniques* for details. This approach can be hazardous:

- Page number formats and numbering can be problematic; Word has idiosyncrasies and deficiencies in this area, especially when more than one section has roman numerals.
- Watermarks must be placed in every primary header of every section. A document with many sections requires care in placing the watermark.
- If the same style sheet is not used for all the individual files, then the combined document may have problems related to styles, margins, headers, and footers.

Group Chapters into Sections

Design details:

- Each section is preceded by a section title page.
- Section title appears on a page by itself, precedes first chapter in the section.
- Section title appears in the document TOC with no page number and with a colored background that appears to be a thick bar across the line. This styling is arbitrary, I have done it this way sometimes and not at other times.
- Each chapter can start on its own page, or not.
- Each chapter can be numbered, or not.
- Section title appears in the footer. Again, this is optional.
- Document text has pages numbered consecutively from 1 on. There are variations on this, e.g., if chapters are long, they can be numbered and their pages can start with 1 and be prefixed by the chapter number. This design has nothing to do with sections, but can complicate sections.

How is this accomplished?

- Create/modify styles: (a) a TOC n style is used to format the entry for the section in the document TOC and (b) a custom style, like "SectionTitle" is applied to the title text on the section title page. See page 61 for other possibilities.

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- Section page content is limited to the title of the section, usually 1–3 words. Although there may be a case in which you would want to include an introductory paragraph.
- Create a custom style, like “SectionTitle,” and apply it to the title on the section page. Give it a top and bottom margin, line height, border, and shading. Give it an Outline Level = 9 (to match the TOC style). Again, see page 61 for details.
- Section titles are included in the TOC by preceding them with a TC field code:
`{ TC "text of TOC entry" \l 9 \n }`
The \l switch is the paragraph outline level of the TOC entry, it is used to select the TOC style. In the example the TOC9 style is used.
The \n switch blocks the page numbers in the TOC entry.
The TC field code is not necessary when style SectionTitle has outline level 9.
There are other possibilities, see page 61 for details.
- The section title pages are in their own Word section, i.e., they are bracketed by next page section breaks. This is necessary only when their page header or footer is different than the pages that follow.
- The styling of the section title in the TOC includes a 1pt border and paragraph shading with the same color. The top margin is 12pt, the bottom margin is 6pt, and the line height (spacing) is at least 16pt. This is for a text that is 12pt. The line height makes the colored background a thick bar. This styling is my choice, but arbitrary.

Insert Chapter Number and/or Title in Page Header/Footer

There are three variations: (1) use field code StyleRef; (2) use Seq field code; (3) use cross-reference to styled text.

Using Field Code StyleRef to Insert Text

1. Does not require a special section.
2. Insert field code with appropriate switches. Example: { StyleRef “Heading 2”} causes the topmost heading2-styled text on the current page to appear in the header/footer; as you scroll through the document, the header text changes automatically.

The inserted text will not include any Seq field result. Neither will it include any numbering defined in the style. The only way it will include numbering is if that numbering is typed text and a part of the styled text.

You can place both the StyleRef and Seq field codes in a page header/footer.

Using Field Code Seq to Insert Number

1. Does not require a special section.
2. Assign chapter number in document text with Seq field code; e.g., {SEQ chapter \n}.
3. In header/footer insert Seq field code with appropriate switches, e.g., {SEQ chapter \c * arabic }

Using Cross-Reference

1. Each chapter must be its section.
2. Type chapter title with built-in heading style.
3. In Header-Footer View, be sure header/footer is not linked to the previous one.
4. Insert cross-reference to text with named heading style.

Useful Microsoft Word Techniques

Cross-references are inserted as the field code Ref. Using a cross-reference requires care if you edit the chapter number/title. You must type new text in front of existing text, then delete existing text. Then select header/footer and press [F9] to update the reference. Word will also automatically update the field when you print the document.

Word by default inserts cross-reference fields as hyperlinks.

This is the least useful technique because of the requirement to have unique sections. Lots of unlinked sections can cause grief.

FIELD CODES

Field codes are a way of automating text creation and update in a document. Field codes can be used (1) to display information about a document such as the author's name, the file size, or the number of pages; (2) to add, subtract, or perform other calculations; (3) for references such as footnotes, cross-references, and tables of content; (4) to interact with user; (5) to perform mail merge; and more.

The field code includes the field characters, field type, and instructions used to generate the field's result.

Commonly used field codes include:

AutoText	for boilerplate that is subject to change
Date	current date
DocProperty	custom document property
DocVariable	text of named variable
FileName	built-in document property, only usable in header or footer
If	one of two text strings based on the results of a comparison
Include	complete document or bookmarked text in another document
Index	index based on index entries marked with XE field
NoteRef	footnote or endnote reference marked by bookmark
NumPages	number of pages in file
Page	page number
PageRef	relative page number of named bookmark
Quote	inserts text into document; can have nested fields
RD	identifies a file to include in a TOC, TOA, or index
Ref	text or graphics marked with named bookmark in active document; effects a cross-reference
SaveDate	date-time that document was last saved
SectionPages	number of pages in current section
Seq	chapter number
Set	set value of named bookmark
StyleRef	text from paragraph with the named style; can be used to create dictionary-style headers that include the first and last text on the page
Time	current time
TC	flags text for table of contents entry

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TOC	table of contents
XE	defines text and page number for index entry
=	calculate a number with a mathematical formula

Accessing Field Codes: Create, Edit, See

- Insert a field code with menu Insert, Field.
- Type a new field code directly in your document: Press [Ctrl+F9] and then type the code within the curly brackets.
- Display the field code: put the cursor in the field and press [Shift+F9].
- Display RD field codes: they are visible when the paragraph mark (¶) is visible. You can use menu View, Show All.
- Toggle between displaying one field code and its result: put the cursor in the field and press [Shift+F9].
- Toggle between displaying all field codes and their result: press [Alt+F9].
- Edit an existing field: Right-click the field to display the context menu, then select Edit Field. For some fields, such as the TOC field and the AutoTextList field, you must display the field code to edit it.
- Regenerate a field result: put the cursor in the field (with arrow keys) and press [F9].
- Change a field result to regular text: click the field, and then press [Ctrl+Shift+F9].
- Lock a field to prevent changes in its result: select field, [Ctrl+F11].
- Unlock a field: select field, [Ctrl+Shift+F11].
- Some field codes are automatically updated (regenerated) when the document is printed, SaveDate is one such. You can simulate printing, in order to update the field codes, with menu File, Print Preview.

Format Switch

Some fields have a format switch *.

<i>Switch</i>	<i>Effect</i>
* caps	title case
* firstcap	first word in title case
* lower	all lower case
* upper	all upper case
* alphabetic	alphabetic; if entered in uppercase, the value is displayed in uppercase
* arabic	numbers as arabic numerals
* roman	numbers as roman numerals
* cardtext	numbers as cardinal text, e.g., Seven Hundred Ninety
* dollartext	amounts as cardinal text and decimals, e.g., Fourteen and 15/100
* hex	numbers as hexadecimal numbers
* ordinal	numbers as Arabic ordinals, e.g., 30th

Useful Microsoft Word Techniques

<i>Switch</i>	<i>Effect</i>
* ordtext	numbers as ordinal text, e.g., Fourteenth
* charformat	applies the formatting of the first letter of the field type; use to apply format of text in which the field code is placed (especially when otherwise the format of the bookmarked text is used)*
* mergeformat	applies the formatting of the previous result to the new result; retains the formatting applied to the field results (preserves formatting during updates)

Date-Time Picture Switch

This switch applies to date-time fields like SAVEDATE.

Syntax: \@ “picture”

<i>Element</i>	<i>Meaning</i>	<i>Variations</i>	<i>Example</i>
M	month	M – no leading zero MM – leading zero MMM – 3-letter abbreviation MMMM – full name	7 07 Jul July
d	day (of week/month)	d – no leading zero of day of month dd – leading zero of day of month ddd – 3-letter abbreviation of day of week dddd – full name of day of week	8 08 Tue Tuesday
y	year	yy – 2 digits yyyy – 4 digits	06 2006
h/H	hour	h – no leading zero hh – leading zero	9 09
m	minute	m – no leading zero mm – leading zero	1 01
s	second	s – no leading zero ??? ss – leading zero	5 05
am/pm	in uppercase	also AM/PM	5 AM

- Normally the picture is enclosed in double quotation marks, especially when it includes spaces or text. However they are optional for enclosing simple date-time pictures that do not include spaces or text.
- Other text can be inserted: enclose it in single quotation marks.
- Punctuation—as colon, hyphen, space, period, comma, slash, or asterisk— can be inserted as is: no quotation marks are necessary.
- SEQ field code values can be inserted: enclose the item identifier in grave accents (`). The grave accent is the keyboard key to the left of 1.

* There was a case in Word 2003 when inserted cross references had the style of the bookmarked text. The solution is to use the * charformat switch in the +Ref field code.

Useful Microsoft Word Techniques

<i>Example of Display</i>	<i>Field Code</i>
12:45 Greenwich mean time	{ TIME \@ "HH:mm 'Greenwich mean time' " }
6.10.2006 12:34 PM	{ DATE \@ "m.d.yyyy h:mm am/pm" }
Monday June 6, 2005 at 12:00	{ DATE \@ "dddd MMMM d, yyyy', at' h:mm" }
Friday, November 24, 2002	{ DATE \@ "dddd, MMMM d, yyyy" }
11:15 Nov-6, 99	{ DATE \@ "HH:mm MMM-d, yy" }
03/04	{ DATE \@ MM/yy }.
Table 2 was printed on 9/25/02	{ PRINTDATE \@ "'Table' `table` 'was printed on' M/d/yy" }

If you change a picture after the field code is inserted, you must regenerate the field before the new formatting is visible: move the cursor into the field with the arrow keys and press [F9].

Numeric Picture Switch

This switch applies to calculation fields and other numeric results. It has no effect on non-numeric results.

Syntax: \# “picture”

<i>Element</i>	<i>Meaning</i>	<i>Example</i>
0 (zero)	number of numeric spaces to display; if the result does not include a digit in that place, Word displays a 0 (zero)	00.00 > 09.00
#	number of numeric spaces to display; if the result does not include a digit in that place, Word displays a space	##.## > 15.2
x	drop digits to the left of the "x" placeholder; if the "x" is to the right of the decimal point, the result is rounded to that place	x## > 53 .x > .8
.	specifies the decimal point position	
,	specifies the digit grouping symbol, to separate series of three digits	#,###,###
-	specifies a minus sign for negative results, adds a space for positive results	-##
+	specifies a plus sign for positive results, adds a space for negative or zero results	+##
\$	specifies a dollar sign	\$xx.00
'text'	text within single quotes is inserted in the result	##0.00 'is sales tax' > \$347.44 is sales tax

Example: divide a number of hours by 8 and display the result with one decimal place that is blank if zero:

= C3/8 \# #,###.#

Useful Microsoft Word Techniques

Sequence (SEQ) Field

Assigns sequential numbers. Useful for implementing chapter numbers that are included in page footers and TOC entries.

{ SEQ identifier [bookmark] [switches] }

identifier	name; must start with letter; maximum 40 characters (letters, numbers, underscores). Example: tables
bookmark	name of bookmark elsewhere in document
switches:	
\c	repeats closest preceding sequence number
\h	hides field result. BUT the \h switch doesn't hide the field result if a Format (*) switch is also present. Damn!
\n	inserts next sequence number; default
\r n	resets sequence number to n; must be arabic
\s	resets sequence number at the heading level following s. Example: {SEQ figure \s 2} starts numbering at the Heading 2 style.
*	format

To use an alphabetic sequence like A, B, C, ...: use format switch * alphabetic:

```
{SEQ chapter \r 3 \* alphabetic}
```

An easy way to insert Seq field codes is with menu Insert, Reference, Caption.

A SEQ field in a header, footer, annotation, or footnote doesn't affect the sequence numbering that results from SEQ fields in the document text. In these locations it functions as a reference:

```
{SEQ chapter \c \* alphabetic}
```

DocVariable Field

Inserts string assigned to the document variable. The variable must be established and its value set with VBA.

```
{DOCVARIABLE "name"}
```

"name"	name of variable; e.g., "strNum"
--------	----------------------------------

If Field

```
{ IF Expression1 Operator Expression2 TrueText FalseText }
```

Inserts one of two text strings based on the results of a comparison.

```
{IF order>=100 "Thanks" "The minimum order is 100 units"}
```

Perform Calculations with Fields

Fields can be used to perform calculations. And they can be nested:

Useful Microsoft Word Techniques

```
{SET Quantity {FILLIN "Enter number of items ordered: " }}  
{SET TotalCost { = (UnitCost * Quantity) + ((UnitCost * Quantity) * SalesTax }}  
{ = { NumPages } - { PageRef S1 \* arabic } - { PageRef S2 } }
```

Functions can be used to perform calculations in table cells. Functions that refer to cells by relative position ignore table headings. Functions are entered as a field like “=SUM(ABOVE)” Common functions:

SUM()	sums the referenced cells
AVERAGE()	calculates an average of the referenced cells
COUNT()	counts the referenced cells
INT()	returns an integer
MAX()	returns the maximum value of the referenced cells
MIN()	returns the minimum value of the referenced cells
MOD()	calculates the modulus

You can also enter a formula with one or more math operators or combine math operators with functions, preceded by the equal sign.

C2-B2	subtract cell B2 from C2
E3/D3	divide cell E3 by D2
(e3/d3)*100	divide cell E3 by D2, multiply result by 100

In the preceding calculations with functions and/or math operators, cells can be referenced in three ways:

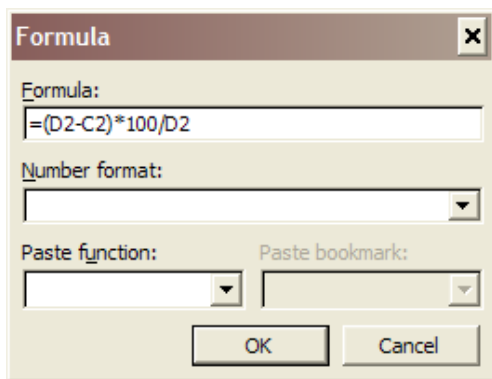
- ABOVE/BELOW/LEFT/RIGHT uses relative positioning but applies to all cells, not just one. ABOVE refers to all cells above the current cell to the top of the column (exclusive of cells in a heading row) or to the first empty cell or illegal value. When using this reference, it can be helpful to put a zero in a cell instead of leaving it blank.
- A1 format where A identifies the column and 1 identifies the row
- bookmarked cell(s) in 1+ tables

Examples:

=SUM(ABOVE)	sums the cells located above the calculation cell excluding heading cell(s) and stopping at the first empty cell or cell with an illegal value
=SUM(B2:B6)	sums the values in second column of rows 2–6
=SUM(LEFT)	sums the values of the cells in the same row to the left of the current cell, stopping at the first empty cell or cell with an illegal value
=(e3/d3)*100	divide cell E3 by D2, multiply result by 100

Formulas can be inserted by either menu Insert, Field then [Formula] or menu Table, Formula. The formula is inserted as a field with curly braces. It can be accessed as for other fields, e.g., view the field code with [Shift+F9] and recalculate the formula with [F9]. I have encountered difficulty entering a calculation field code “from scratch” (using [Ctrl+F9]) with A1 cell references, I get a syntax error. The error does not occur when I enter the formula from the menu Insert, Field.

Useful Microsoft Word Techniques



If you are using a calculation like the above percentage difference between two cells in a table with many rows and you are using the A1 cell reference method, you will have to enter the formula in each row; each formula will differ from the others by the row number. An easy way to do this is to create the first formula, then paste it into each row, then use [Alt+F9] to display all the field codes at once, then edit the row number in each code, then use [Alt+F9] to display the results in all the rows at once, then select the column with the field code and press [F9] to regenerate all the field results at once.

Macrobutton Field

This field code is nifty for providing the user a simple way to run a macro that is intended to facilitate the operation of the Word document.

The basic syntax of the field code is:

```
{ MACROBUTTON macroname "text on button" }
```

Example:

```
{ MACROBUTTON ToggleFormLock "[Double-click to toggle form lock]" }
```

Operation: the user double-clicks the text to run the named macro. It can be helpful to style the text to make it look a little like a button. At the least a background color. I like to use square brackets to emulate a button, you could also apply a thick gray border.

TABLE OF CONTENTS

Word has the means to automatically populate the text and page numbers in a table of contents. On the face of it, a table of contents is simple. However in technical writing, more complex scenarios demand a more informed application, hence the many pages that follow.

There are two problems to solve: (1) identifying the TOC entries and (2) formatting the TOC entries.

A table of contents (TOC) is placed in a document with the TOC field code, even when menu Insert, Reference, Index and Tables, Table of Contents is used.

The contents of the TOC are derived from:

- text with heading styles (actually, styles with a paragraph outline level equal to Level 1 through 9)
- and/or TC field codes

Useful Microsoft Word Techniques

- restricted to text contained within bookmarks
- and other esoteric things, see below for details.

The text of the TOC entries is based on text

- within the same document
- and/or in one or more other documents—use one RD field code to identify each document.

An unfortunate aspect to both TC and RD field codes is that they are visible when hidden text is visible. Thus if a reader opens a document having these codes and sets hidden text to be visible, the codes are visible and may confuse the reader.

TOC entries are assigned a level based on the paragraph outline level of their text style or, if they are based on TC entries, a switch. Should you wish to exclude a heading from a TOC, change the heading's paragraph outline level to "Body text."

Text with a heading style that is flagged as hidden will NOT be used for a TOC entry.

Generally the formatting of TOC entries is defined by the TOC n styles. TOC 1 is typically automatically used for text with the Heading 1 style; TOC 2 is typically automatically used for text with the Heading 2 style (which corresponds to the paragraph outline level 2), etc. Use the Format, Styles and Formatting menu item to access the way to define the formats.

A TOC can be re-generated (as for any field code result): position the cursor inside the TOC with arrow keys, then press [F9].

Field Codes Used in Tables of Contents

A table of contents uses at least one field code and possibly others. It's best to be proficient at field codes to make the most of the possibilities.

TOC	Table of Contents
RD	Reference Document
TC	Table of Contents Entry

The switches for the TOC field code are itemized on page 58.

My Preferred TOCs

For a TOC within a document where the document title has style Heading 1:

- is based on text with heading styles Heading 2–3 or sometimes 2–4
- entries have hyperlinks
- page numbers are right-justified with leading dots
- is done with field code { TOC \o "2-3" \h }

Contents of TOC Entries

You can create a table of contents with the TOC field code with no switches. This TOC has entries for all text styled with a Heading style, from Heading 1 to Heading 9. This might be considered the

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“default” TOC; however, the “Index and Tables” dialog box (opened with the Insert menu) has its own defaults, ones that are different.

You can restrict TOC entries in several ways:

- You can restrict TOC entries to those for text with named Heading styles: Use the \o switch. Example: { TOC \o “2-3” }. This is the most common usage—and the easiest. If you want only one level specify it like { TOC \o “3-3” }.
- You can restrict TOC entries to those for a contiguous portion of the document body by creating one bookmark that encompasses that portion, then adding the bookmark name with a \b switch to the TOC field code. Example: { TOC \o “1-3” \b BookmarkName }.
- You can restrict TOC entries to those for TC fields with a particular Entry Identifier. To do this each TC field code that you want to include in the TOC should include a \f switch with the same Entry Identifier value. The TOC field code includes the \f switch with the same Entry Identifier value.
- You can restrict TOC entries to those for text that is numbered with a SEQ field; use the \c switch. This is useful for lists of figures, tables, etc.
- You can restrict TOC entries to those for TC fields that assign entries to a particular range of outline levels: use the \l switch. Example: { TOC \l 1-4 }.
- You can restrict TOC entries to those for text that has a particular style name: use the \t switch. Example: { TOC \t “StyleName1,1,StyleName2,2,StyleName3,3” }. Can be combined with the \o switch.
- You can restrict TOC entries to those for text with any paragraph outline level: use the \u switch. Example: { TOC \u }. The paragraph outline level can have been set manually or with a Heading style. [This is not much of a restriction!]
- It is unknown how these ways can be combined, if at all. You may have to experiment.

TOC Field Code and Switches

A TOC is inserted into a document with the TOC field code. You can use either menu Insert, Reference, Index and Tables to use a wizard-like tool to insert a TOC. Or you can do so by inserting the field code directly with men Insert, Field. The easiest way to edit an existing TOC is to edit the field code.

The basic syntax of the field code is:

```
{ TOC [ Switches ] }
```

Example:

```
{ TOC \o "1-3" }
```

In the following table, the most useful switches are highlighted.

<i>Switch</i>	<i>Use Group</i>	<i>Use</i>
\a	format	Identifier: Lists items captioned with the Caption command (menu <u>Insert, Reference</u>) but omits caption labels and numbers. The identifier corresponds to the caption label. For example, although a caption on page 12 is "Figure 8: Mercury", the field { TOC \a figures } displays entries as "Mercury.....12". Use the \c switch to build a table of captions with labels and numbers.

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<i>Switch</i>	<i>Use Group</i>	<i>Use</i>
\b	content	Bookmark Name: Collects entries only from the portion of the document marked by the specified bookmark. That is, this switch limits the document text from which TOC entries can be created. Example: \b MyBookmark
\c	content	SEQ Identifier: Lists figures, tables, charts, or other items that are numbered by a SEQ (Sequence) field. Word uses SEQ fields to number items captioned with the Caption command (menu <u>I</u> n <u>s</u> ert, <u>R</u> eference). SEQ Identifier, which corresponds to the caption label, must match the identifier in the SEQ field. For example, { TOC \c "tables" } lists all numbered tables. This switch with no qualifier causes the table entries to have style Table of Figures.
\d	format	Separator: When used with the \s switch, specifies the number of characters that separate the sequence numbers and page numbers. Enclose the characters in quotation marks. Word uses a hyphen (-) if no \d switch is specified. In the table of contents generated by { TOC \o "1-3" \s chapter \d ":" }, a colon (:) separates chapter numbers and page numbers—for example, "2:14."
\f	content	Entry Identifier: Builds a table from TC fields regardless of their level. If EntryIdentifier is specified, the table is built only from TC fields with the same identifier (typically a letter). For example, { TOC \f t } builds a table of contents from TC fields such as { TC "Entry Text" \f t }. Can be combined with \o switch.
\h	format	Hyperlinks: Inserts TOC entries as hyperlinks.
\l	content	Levels: Builds a table of contents from TC fields that assign entries to one of the specified outline levels (specified in the paragraph format). For example, { TOC \l 1-4 } builds a table of contents from TC fields that assign entries to levels 1-4. TC fields that assign entries to lower levels are skipped.
\n	format	Levels: Omits page numbers from the table of contents. Page numbers are omitted from all levels unless a range of entry levels is specified. For example, { TOC \n 3-4 } omits page numbers from levels 3 and 4. Delete this switch to include page numbers. This switch always requires a range of values, e.g., \n 4-4.

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<i>Switch</i>	<i>Use Group</i>	<i>Use</i>
\o	content	<p>Headings: Builds a table of contents from paragraphs formatted with built-in heading styles (Heading 1 through Heading 9). For example, { TOC \o "1-3" } lists only headings formatted with the styles Heading 1 through Heading 3. If no heading range is specified, all heading levels used in the document are listed. Enclose the range numbers in quotation marks. If only one level is desired, specify as a range, e.g., "2-2".</p> <p>In reality, the "o" refers to Outline level. By default, heading styles are defined with an outline level corresponding to their heading level. However, other styles may also have a numeric Outline level (e.g., Level 1). To remove these from your TOC, change the paragraphs' outline level to "Body text" and regenerate the TOC.</p>
\p	format	<p>Separators: Specifies the characters that separate an entry and its page number. For example, the field { TOC \p "—" }, with an em dash, displays a result such as "Selecting Text— 53." The default is a tab with leader dots. You can use up to five characters, which must be enclosed in quotation marks. Apparently, only one character is put in TOC entries.</p>
\s	format	<p>Identifier: Includes a number such as a chapter number before the page number. The chapter or other item must be numbered with a SEQ field. Identifier must match the identifier in the SEQ field. For example, if you insert { SEQ chapter } before each chapter heading, { TOC \o "1-3" \s chapter } displays page numbers as 2-14, where "2" is the chapter number.</p>
\t	content	<p>Style,Level, Style,Level, . . .: Builds a table of contents from paragraphs formatted with styles other than the built-in heading styles. For example, { TOC \t "chaptertitle,1, chapterhead,2" } builds a table of contents from paragraphs formatted with the styles "chaptertitle" and "chapterhead." The number after each style name indicates the table of contents entry level that corresponds to that style; for example, level 6 means that the entry is given the style TOC 6.</p> <p>You can use both the \o switch and the \t switch to build a table of contents from built-in heading styles and other styles.</p> <p>Cannot use style Header as it has no effect, or perhaps it is that the text must be in the body of the document.</p>
\u	content	<p>Builds a table of contents by using the applied paragraph outline level (Level 1 through Level 9) of paragraphs in your document. Any level qualifies for TOC entry.</p>
\w	format	<p>Preserves tab entries within table entries.</p>
\x	format	<p>Preserves newline characters within table entries.</p>
\z	format	<p>Hides tab leader and page numbers in Web layout view.</p>

TC Field Code and Switches

A TC field is used to flag text for inclusion in a table of contents. Cannot be used in a page header or footer. The TC field is categorized as hidden text.

The basic syntax of the field code is:

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{ TC "text of TOC entry" [Switches] }

Example:

{ TC "About Bookmarks" \l 2 }

<i>Switch</i>	<i>Use</i>
\f	Type: flags entry for inclusion in a contents list with matching type. Example: include entry in a list of illustrations: \f i Corresponding TOC field has switch \f i
\l	Level: paragraph outline level of TOC entry. Used to select TOC style.
\n	Omit page number for entry.

Special TOC Cases

Can you combine content-level TOC switches? Yes, some.

There are several content-level switches for the TOC field code:

<i>Switch</i>	<i>Use</i>	<i>Example</i>
\b	named bookmarks	TOC \b MyBookmark
\f	named TC field identifier, the text in the TC field is automatically included in the TOC and styled with the outline level specified in the TC field; can be combined with \o	TOC \f t
\l	named outline levels in TC fields	TOC \l 9
\o	named outline levels in document text	TOC \o "2-4"
\t	named non-built-in heading styles; can be combined with \o	TOC \t "CustomStyleA,5"

Ways in which to automatically add section titles to a TOC:

- a) You can specify TOC entries with the \o switch alone. This means only using headings with styles having outline levels you want to include in the TOC. You may normally limit the TOC entries to Headings 2–4 (styles Heading 2, Heading 3, and Heading 4). If you want to include a section title in the TOC, define its style with an outline level like 9, and never use a lower level for a similar special purpose. This way you can define the TOC content with the \o switch, e.g., \o "2-9" where outline level 9 is used by the section title style.
- b) Use TC fields for the section pages. Use a particular type in the TC fields, e.g., { TC "section title text" \f t }. Combine the \o switch with the \f switch: Specify TOC entries for the built-in Heading styles with the \o switch, specify the TOC entries for the specially-coded TC fields with the \f switch, in the TOC field combine the \o switch with the \f switch, e.g., { TOC \o "2-3" \f t } In order to control the formatting of the TOC entry for the TC fields, specify the style applied to the TOC entry with the \l switch in the TC field code, and then customize the corresponding TOC n style.
- c) Use a custom style for the section titles, define that style as having Outline level = Body text. Specify both the custom style and its corresponding TOC style in the \t switch: { TOC \o "2-4"

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\t “SectionTitle,9” }. Note that style TOC 9 will be applied to the TOC entry for “SectionTitle”.

There are several ways to control which TOC entries have page numbers and which do not.

- a) In the TOC field use the \n switch to name the headings that will not have page numbers. Note that all headings will have page numbers if the \n switch is not used.
- b) Specify TOC items with the TC field code and include the \n switch to omit the page number.
- c) Some combination of the above.

If you want some TOC entries to have a page number and others to not have a page number, you will have to define those without the page number with the TC field code.

Problems with Tab Stops in TOC

There are two instances in which tab stops do not work reliably in a TOC entry:

- when the tab stop is in the text that becomes a TOC entry
- the tab stop for the page number of a short TOC entry

Unreliable Rendering of Tab Stop in TOC Entry Text

In a technical document it is common to number the headings like 1, 1.1, 1.1.1, etc. Using the auto outline numbering tool associated with a style is a real pill, and one that once you try it you will likely never repeat. Instead use manually entered numbers that become part of the text of the heading. You may also use a tab character to separate the number from the text with the intention of aligning the text on both the document page and the table of contents separately from the numbers. An example of this is:

2.3 My New Heading

which has a tab character between the “3” and the “M.” You will then define the heading style to include a left tab stop for that tab character.

All is well until you create a TOC. You would expect the tab character in the heading text to be rendered according to the tab stop in the TOC x style. Sometimes it is and sometimes it isn't. This is a known bug. In some cases there may be little-to-no tab space in the TOC entry, in other cases the tab space may be wider than desired.

I have found that I can fix the too wide situation by setting a narrower left tab in the TOC x style. The too narrow situation happens to me when the number is one digit. The only way I've found to correct the alignment is to insert 1–2 spaces in the TOC entry before the tab character. This means that you will have to do this every time you regenerate the TOC.

Misplaced Page Number Tab Stop

When the TOC entry is short, you may experience the unappreciated result in the TOC where the page number is placed soon after the entry text and with no dot leader. For example:

ERROR Box 1
instead of Box 1

This is considered a BUG. It is initiated by a tab stop or hanging indent just to the right of the short entries. There is a workaround: You can either remove the tab stop (or move the hanging indent) or if headings in the document are left-aligned, add a tab character to the end of the short ones and add

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the \w switch to the TOC field to preserve the tab characters. You may have to resort to trial-and-error to find the best combination of paragraph settings for the TOCx styles.

Variations on Tables of Content

For simple documents you might place a TOC near the top within the body of the text and give it a two-column layout. For elaborate documents, the TOC is best on a page of its own. There are other possibilities.

Table of Contents in Two Columns

This is so cool, but it does require a little tweaking.

First insert the TOC field code. Then select and change the number of columns to two with a line between.

So far so good, the TOC has a section break continuous before it and after it.

You will likely want the contents of the columns to be balanced, that is approximately the same height. Do this with Option “Don’t balance columns for continuous section starts.”

Do not define the TOC1 style with a top margin (spacing before). Instead define it with a line height to equal the sum of the font size and the desired top margin. HMM: This looks bad when the line wraps! Then turn on options

- a. Options: suppress extra line spacing at the top like word 5.x for the Mac.
- b. Options: suppress space before after a hard page or column break.

This will let the first TOC1 align at the top of the column.

The TOC1 style has by default the keep with next on. This is fine except when there is no following TOC2 entry. In this case all the TOC1s without a following TOC2 will stay together, even to shift to a second page. What to do? You can manually remove the keep for the offending entries. But be aware these edits will disappear when you regenerate the field code results.

A solution is to remove the keep from the TOC1 style.

Table of Contents Within a Chapter

A chapter-only table of contents (TOC) is helpful in long chapters. From both space and visual perspectives, it is nice to present the TOC in two side-by-side columns. The appearance of the TOC entries is defined by styles (TOC1, TOC2, etc.). If you have a separate TOC for all the chapters and you will want it to be styled differently, then you need to be careful about the location of the style definitions. It is easiest if both are styled the same.

The format for chapter-only table of contents might be like:

- two balanced columns
- line between the columns
- page numbers for all entries
- page numbers right justified (at 2.75”) with dot leader (this width fits a line length of 6”)
- page numbers are prefixed with chapter number and dash, e.g., 12-3 (optional)
- Normal font (typeface and size) for level 1 heading
- Normal font one size down for level 2 and 3 headings

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- level 1 headings are bold
- level 3 headings are italic
- all level headings have a right indent of 0.35” (to make room for the page number)
- all level headings have hanging indent of 0.15” (to make any second lines distinct from other entries)
- level 3 heading has left indent 0.3” (or 0.2”)
- be sure that the right tab is the only tab setting

If you are using chapter numbers separated from the chapter text by a tab, you must add a corresponding tab to the TOC style.

This is done with the following steps:

1. Styles TOC1, TOC2, and TOC3 must be defined to meet the above formats.
2. If field code SEQ is used to number the chapter, define it now (if not already defined): Locate cursor at beginning of chapter. Insert, Field, Category = Numbering, Field name = Seq. In the field code text area, type “chapter \r *n*” where *n* is the actual number. The resulting field code should look like: { SEQ chapter \r 12 }. Be sure to delete the typed chapter number in the document text. When the chapter “number” should be a letter, as for appendices, (1) in the field code text area insert the General Switch for ALPHABETIC and (2) specify the \r value as a number (e.g., use 3 for C). Example: {SEQ chapter * ALPHABETIC \r 3}.
3. If you have changed the chapter SEQ number, you can force Word to display the new value by selecting it and pressing [F9].
4. Insert table of contents. Can use either menu Insert, Reference, Index and Tables or Insert, Field. Resulting field code (visible using Tool, Options, View) is { TOC \o “1-3” \s chapter \n “1-1” }. If you insert the table (as opposed to the field code), you will need to edit the field code to add the \s and \n switches.
5. Select the table of contents. Apply a two-column format: Format, Column. Select properties: 2 columns, equal column width, line between columns, apply to selected text . This creates two balanced columns. At this point the TOC lines have their page numbers past the right side of the columns, and invisible.
6. When contents change, locate cursor within the table of contents. Press [F9] to regenerate the TOC and reconstruct the page numbers.

Two or More TOCs in the Same File

Should you want to have **more than one TOC in the same file** and where one TOC represents a subset of the other (such as might happen if you have a master TOC and then a mini local TOC), you can use Heading styles to generate the larger TOC and a bookmark to restrict the smaller one. For example, the master TOC might be { TOC \o “1-3” } and the mini TOC might be { TOC \o “2-4” \b Local }.

TOC in Its Own File

The TOC can be in a file by itself. This is especially useful when the entries are based on text in a group of document files. You must name each file from which to collect TOC entries with a RD field code. This is discussed in more detail in the section titled *Create Consolidated TOC in Its Own File* on page 66.

Using Section Title Pages

In some projects you may want to create a single file composed of several multi-page chapters grouped by section. You want each section to have a title page that appears on the table of contents. In order to keep each section autonomous, you want its page numbering to reflect the section and for it to start with 1. The good news is that this can be done and fairly easily.

The design is as follows:

- Each section is identified with a title and a section “number” expressed as A through Z.
- Each section begins with a title page that includes its title and section number but has no page numbering, e.g., the text is A–Purebred Cats.
- Each chapter page in a section has a page number that is prefixed by the section number, e.g., A–3. All text pages in a section are numbered sequentially beginning with 1 on the first page of the first chapter.
- There is an entry in the table of contents for the section title that precedes the entries for the chapter text for that section. This entry has no page number.
- Each table of content entry for a section's chapter text is prefixed by the section number, e.g., A–3.

The technology to effect this is as follows. Be careful as the word “section” is used to refer to two different things: the logical document section which is the subject of this discussion and the physical Word section created by inserting a Section Break Next Page. The latter is capitalized for clarity.

- Each section title page is its own Word Section, that is it is bracketed by Section Break Next Page. Its page header and footer are not linked to the previous ones.
- The section title text is styled with its own style, say “SectionTitle”. The section number is established with a SEQ field code. The title text is followed by a TC field code that causes a table of content entry to be generated. For example: The first section is numbered A. The first content in the document Section is the field code { SEQ section \r 1 * ALPHABETIC }, then the separator “–” and the title “Purebred Cats.” This is followed by the TC field code: { TC “A–Purebred Cats” \l 9 \n }. Note that in the TC field code the section number is entered as plain text, because that is easiest and there is no advantage to using the SEQ field code. The \l switch causes the corresponding table of content entry to have style TOC9. The \n switch suppresses the page number in the table of content entry.
- The first chapter page in each section has a header and footer that is not linked to the previous one. The footer has page numbering with the PAGE field code and the SEQ field code: “Page {SEQ section \c * ALPHABETIC }–{ PAGE * arabic }”.
- On the first chapter page in each section set the page numbering to start at 1 (with menu Insert, Page Numbers).
- On section title pages other than the first section the SEQ field code increments the original value: { SEQ section \n * ALPHABETIC }.
- In the table of contents the field code is:
{ TOC \o "1-3" \f \h \s section \d "–" }
where the \o switch specifies entries based on text styled with Heading 1 through Heading 3; the \f switch specifies entries based on TC field codes; the \h switch creates the entries as hypertext links; the \s switch causes the named SEQ field code to be prefixed to the page numbers; and the \d switch specifies the separator between the SEQ value and the actual page number (note that you can enter this as an en dash with the keyboard shortcut keys).

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- Style TOC9 is formatted to set off the section title in the table of contents to suit your typographical design.

Create Consolidated TOC in Its Own File

Use a separate Word document for a table of contents that consolidates a group of other documents. This is desirable when you are working on a long document divided into chapters which exist as their own file.

The contents of the consolidated TOC document are a set of field codes. You would only use one TOC field, but you can use several RD fields and you can combine TOC and RD fields.

{TOC \o "1-3"}	include text with styles Heading 1, 2, 3
{TOC \o "1-3" \s chapter \n "1-1"}	include text with styles Heading 1, 2, 3; include Seq field = chapter; exclude page numbers for Heading 1
{RD \f "docname.doc"}	for document in the same directory
{RD \f "//www.mywebsite.com/a/docname.doc"}	for document in website
{RD "c:\data>manual\docname.doc"}	for document in different directory

The help file states when the path is included to use double backslashes:
"C:\My Documents\Manual.doc"

You cannot intersperse the RD codes with text. You may want to leave whitespace between each document; do that with Before Spacing in the TOC1 style. You may want to exclude page numbers for the title of each document (assuming the title is styled as Heading 1); do this with the \n switch: \n "1-1".

Display the field code: put the cursor in the field and press [Shift+F9].

Display RD field codes: they are visible when the paragraph mark (¶) is visible. You can use menu View, Show All.

TABLE OF FIGURES

Generally Table of Figures (TOF) entries are created automatically from figure captions which are composed of a label and text, the label typically having the format "Figure n:" where "n" is a number.

Captions can be inserted from the menu or typed with a particular paragraph style. In the former the text has the style Caption and the figure number is the result of the field code "SEQ Figure /* ARABIC". In the latter the caption style can include automatic numbering.

Design the TOF's appearance: formatting, layout, use of page numbers, use of labels.

Your options for the content of the TOF entry are somewhat dependent on how the captions are created. If the caption was inserted from the menu, then any label appearing with the caption in its native place can be blocked in the TOF.

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A TOF is created with the TOC field code. Various switches allow you to specify the source of the entries, their contents, and format. You can insert the TOC field code (1) manually, (2) with menu Insert, Field, or (3) with menu Insert, Reference, Index and Tables and tab Table of Figures.

For a table of figures based on style CaptionAutoNum, the field code is:

{TOC "\h \z \t "CaptionAutoNum" \c }. The C switch normally has a SEQ identifier (e.g., \c "figure"), but in this case it does not, and is used to control the style applied to the TOF entry.

The TOF entries will have style Table of Figures if the C switch is included in the TOC field code with no identifier. Otherwise the entries will have style TOC 1, which is probably not what you want.

Format style Table of Figures to reflect your design. Be sure to include:

- A left tab to separate the text from the label.
- A hanging indent to align wrapped lines, I prefer this to equal the left tab.
- A right tab with dot leader to position the page number, I prefer it positioned at the right page margin.

Another application is a Table of Figures composed of entries based on figures captioned with style CaptionAutoNum and having the page number prefixed by a chapter number. The table entries have style Table of Figures.

```
{ TOC \h \z \t "CaptionAutoNum" \s ChapterNumber \c }
```

In this example, some switches are not needed because the default value is desired:

\d Separator: Used with the \s switch to specify the characters that separate the sequence numbers and page numbers. The default value is a hyphen.

\p Separator: Specifies the characters that separate an entry and its page number. The default is a tab with leader dots.

PAGE NUMBERING

Normally Word flows text from page to page to accommodate your styles, paper size, margins, and printer characteristics. Page numbers are determined dynamically as the document is paginated. Page numbers are a property of the section, not the document; each section can have its own page-numbering scheme, and all numbers in the section follow the same scheme. Within a section, page numbers can appear only on page headers and footers. All pages have numbers, but the numbers are only visible when you insert them into the document.

The page number become visible when the Page field code is inserted into the document. It can only be inserted into a header or footer. While more than one page number can be inserted in the same section, this is not good practice. Inserting the page number can be done in several ways:

- with menu Insert, Field
- with the Header and Footer toolbar
- with keyboard keys [Ctrl+F9] which inserts the curly braces, after which you must type the code
- with menu Insert, Page Numbers: this inserts the number (as field code Page) in a frame in the drawing layer of the document, in either the page header or footer area; this is the least desirable method

A page can have three different numbers:

- the absolute (physical) number of the page in the whole file
- the absolute (physical) number of the page in the section

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- the number you assign to it (as either a continuation of the previous section or starting at a number you choose, not necessarily 1)

The Status Bar is a great help in determining a page's number: It presents:

Page **x** Sec **y** n/m

where:

- x** is the number of the current page (in its section) in its set format, e.g., ii
- y** is the number of the section
- n** is the absolute (physical) page number in the file
- m** is the total number of pages in the file

Field codes provide

- (relative) number of current page as it would appear in the header/footer (PAGE)
- the total number of pages in the document (NUMPAGES)
- the total number of pages in the current section (SECTIONPAGES)
- the relative number of a bookmarked page in its section (PAGEREF)

I have a question about this: For SECTIONPAGES, if there is a section break mid-page so the page has two sections, does each section count the current page in its SECTIONPAGES? If yes, the physical page is double-counted.

Page numbers are used

- for printing: you can print a range of pages specified by their page number or a range (e.g., 3-6)
- for the Go To command: you can go to the page with a specific page number

Page Number Schemes

The common numbering scheme for simple documents is arabic numerals that begin with 1: 1, 2, 3, 4, ...

Using Both Arabic and Roman Numerals

Complex documents with a front matter (title page, copyright page, table of contents, preface, list of figures), text (main body), and back matter (appendices, endnotes, glossary, bibliography, index) typically use two schemes: (1) lowercase roman numerals beginning with **i** for the front matter and (2) arabic numerals beginning with **1** for the text and back matter (the back matter page numbers are continued from the main body). The title and copyright pages are printed without a visible page number, so the first page with a visible number is not **i**, but perhaps **ii**.

(Some people think title pages are both not numbered and outside of the numbers for the rest of the document, that the second page is numbered as 1. This is not a good practice.)

Renumbering Pages

When you use different numbering schemes within a document, it is often that the front matter is numbered from 1 in lower case roman numerals and the main body is numbered from 1 in arabic numerals. Getting the main body page numbers to start at 1 involves changing the "start at" value which is a property of the section.

To change the "start at" value, proceed as follows:

1. Position the cursor in the section of the document whose start at value you want to change.

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2. Navigate into the Header or Footer.
3. On the Header/Footer toolbar, click the Format Page Numbers button, to open the “Format Page Numbers” dialog box..
4. Click the Start At radio button and enter the desired value.
5. Click [OK] to close the dialog box.

This method usually works much better than using the Insert + Page Numbers dialog.

Page x of y

In a technical document over 3 pages, it is nice to specify page numbers as:

Page **x** of **y**

where

x is the current page number

y is the total number of pages.

This is done with field codes: Page { PAGE } of { NUMPAGES }.

This works fine when all pages in the document comprise one numbering scheme that starts with 1. It is less successful in a document with two page numbering schemes that each begin with 1: Page ii of 110 looks odd. But so does Page 1 of 110 when that page is actually the fifth page.

What to do? A better scheme is to have the front matter use only the “Page x” method and to reserve the “Page x of y” for the main body and end matter. Then the problem is getting “y” to reflect only the number of pages with arabic numerals. Which boils down to figuring out how many pages precede page 1. Simply stated, this is the physical page number less 1.

See the next section for a discussion of getting the physical page number. The solution to the current problem is based on that. The difficulty is compounded by the use of a two-column format before page 1, say for the table of contents, a practice I usually follow; the added difficulty is that the two-columns area is located in its own section. The solution is use the PageRef field code to get the number of pages in each previous section (based on a bookmark inserted on the last page of each) and subtract them from NumPages:

Page { Page } of { = { NumPages } – { PageRef S1 * arabic } – { PageRef S2 } }.

Note the use of the arabic format switch to convert the numbering style in the front matter (lowercase roman) prior to the mathematical calculation. The S2 bookmark is placed at the end of the TOC.

Get Physical Page Number

How to capture the absolute physical page number of a particular page when there is more than one numbering scheme? Not possible. Even though the Status Bar does this!

One cumbersome way is to sum the SECTIONPAGES for all previous sections. But because that field code only applies to the current section, and you cannot access previous sections, you must simulate it by adding a bookmark on the last page of every section and summing the PAGEREf field codes for each bookmark. Whee. { = { PAGEREf sec1 } + { PAGEREf sec2 } + . . . }.

Printing Numbered Pages

When printing one page, you enter the page number in the Page range group of the “Print” dialog box. When printing a range of pages, you enter the range in the same Pages text box . You could

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simply enter the range like “3-5”. This will print absolute page numbers 3 through 5. When the document has more than one section with different page numbering, the printed pages may have numbers that do not match 3-5.

This seems to work differently on different computers. At home page 13 printed a page with number 13 in the footer, even though it was the 17th page in the document. At the office, it does not. Print “page 1” prints page i. It seems to be inconsistent and unpredictable.

You can cope with a document with multiple page numbering schemes by specifying the page range in terms of the section number and page number:

p<page number>s<section number>-p<page number>s<section number>

See below for details.

Printing Selected Pages in a Multi-Section Document (Word 2010)

Note: While this was written for Word 2010, it works equally for Word 2003, with the exception of customizing the status bar in the first step.

To print a page or a range of pages in Word, follow these steps:

1. If you have not already done so, customize the status bar so that the following data appear: page number (as it appears in a footer), and section number.
2. Scroll to the page where you want to start to print. Note the formatted page number and section number as shown in the status bar.
3. Scroll to the last page that you want to include in the print selection. Note the formatted page number and section number as shown in the status bar.
4. In the Print page, select “Print Custom Range” and enter the selected pages with format like p5s3-p2s4 where “p” precedes the formatted page number and “s” is the section number.

Go To Page

For the “Go To” dialog box, you can cope with a document with differently-numbered sections by how you enter the page number. The simple one-section document is what most people experience and entering a page number as an arabic numeral is straightforward: “8” takes you to page 8.

However, when the document has more than one section with different page numbering, you may be surprised by the result. There is a way of specifying page numbers that will give you the precision you want: When a document has two page-numbering schemes, lowercase roman numerals and arabic numerals, enter the page number in the scheme that corresponds to the section where the page is located; e.g., ii or 6.

Page Numbers in VBA

The Document Object Model has the PageNumbers collection as a subsidiary of the headers and footers: ActiveDocument.Sections(i).Footers(x).PageNumbers. Its placement suggests its limitations.

The collection has properties and methods. The properties related to format and start number are associated with the collection, not the individual number. So, while you can add a second page

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number to a header/footer, it inherits the settings of the first page number. The principal PageNumber object property is alignment.

The Pages collection: ActiveDocument.ActiveWindow.Panes(1).Pages has a Count method and an Item method. The Item method returns an individual page: . . .Pages.Item(1) returns the first page. This does not seem to support access to the physical page number.

My conclusion is that the object model does not expose the physical page number which is visible in the Status Bar.

INDICES

This subject is presented in full detail in a separate document: *Index Reference*.

WATERMARKS

Watermarks are text or pictures that appear behind document text. They are especially useful for indicating document status as “Draft.”

There are different ways to create a watermark:

- Printed watermark: positioning is limited, it can only be horizontal or diagonal centered on the page (when using the wizard). What is called a “printed watermark” is actually a WordArt shape; this distinction is important when (1) setting and/or modifying one with VBA and when (2) deciding where to put it. Because it is a shape, in order to appear on every page, it must appear in every section’s main header.
- WordArt drawing object in header or footer: can be positioned in the side margin
- Text box located in header or footer. The position of the text box is controlled by its properties, the content of the text is what you type, and the appearance of the text itself is controlled by its style.

When Watermarks Disappear

“Printed watermarks won't appear on every page if you change your header or footer for part of the document. For example, the first page may have a unique header or footer, or none at all.

“Or the document may contain different headers and footers on odd and even pages or in particular sections. You can check whether the document contains sections by reading the status bar at the bottom of your screen.

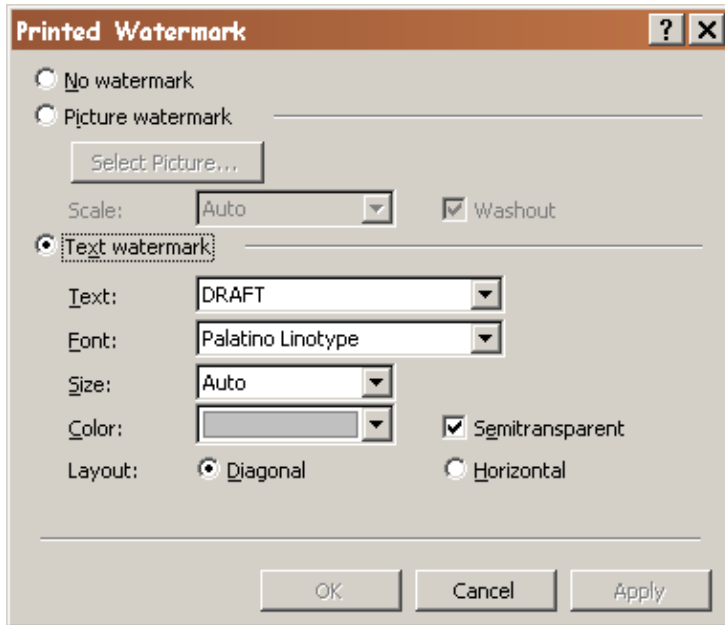
“If you reinsert the watermark again, it should appear on every page of your document.” Personally I think there is more to it than this.

Add a Printed Watermark

In Word 2002:

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1. Use menu Format, Background, Printed Watermark to open the “Printed Watermark” window.



2. Select type as picture or text, then select details.

Add a Watermark as WordArt in the Page Footer

1. Use menu View, Header and Footer to position in the page footer.
2. Use menu Insert, Picture, WordArt to open the “WordArt Gallery” window.



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3. Select a style by clicking an icon, then type the text.
4. You can rotate the text, resize it, and drag it into the margin. In the Footer pane select the WordArt object to make visible its handles. Drag the sizing handles to change the object's size. To move the object, drag it to the desired location. To rotate it, select the rotate handle and drag it clockwise or counterclockwise.
5. Alternatively, select the WordArt object, then select menu Format, WordArt to open "Format WordArt" window.

Add Watermark in Text Box

1. Use menu View, Header and Footer to position in the page header or footer.
2. Add text and apply the appropriate style, say "Watermark".
3. Select the text then use menu Insert, Text Box. A box with an anchor appears around the text.
4. Resize the text box: Select it, move the cursor over a border until it becomes a double-headed arrow, then drag the border as desired.
5. Change the layout of the text box: Select it, then use menu Format, Text Box to open the "Format Text Box" window. The default layout is Square with absolute positioning. You can change this; behind text may be desirable.
6. Move the text box: Select it, move the cursor over a border until it becomes cross-shaped with arrows, then drag the box as desired.

Remove a Printed Watermark

1. Use menu Format, Background, Printed Watermark to open the "Printed Watermark" window.
2. Select no watermark, then [OK].

Remove a WordArt Watermark

1. In the page header-footer pane, select the object and press [Delete] key.

REVISION TRACKING

When Word tracks changes, it tracks each insertion, deletion, or formatting change that you or a reviewer make. It saves the previous text marked up to reflect deletions (displayed with strikethrough formatting) and insertions (displayed as underlined text). The markups are hidden text.

Markups for tracked changes are visible in different ways:

- as differently-colored text within the document as you type regardless of view
- as balloons in a side margin in print view
- in the reviewing pane

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There are several options for viewing tracked changes:

- a. The Display for Review drop-down list on the Reviewing Toolbar has four choices:
 - Original
 - Original Showing Markup
 - Final
 - Final Showing Markup
- b. The Show drop-down menu on the Reviewing Toolbar lets you change the settings of what is visible: comments, insertions, deletions, formatting, when balloons are used.

As you review tracked changes, you can accept or reject each change. This causes the markup to be deleted.

Readers may add comments. They are visible in the comment pane and in balloons in the side margin (in print view).

Both tracked changes—as well as comments (or “annotations”)—can be displayed in balloons in the page margin.

CAUTION: The change tracking feature seems to interfere with the operation of certain keyboard keys (such as the arrow, page up/down, and backspace keys) and some macro actions.

How

Turn it on/off: use menu Tools, Track Changes as a toggle. When the Track Changes feature is enabled, TRK appears on the status bar. When you turn off change tracking, TRK is dimmed.

Remove revision marks and comments: with Reviewing Toolbar select one or more: Accept All Changes in Document, Reject All Changes in Document, Delete All Comments in Document.

View revision marks and comments: with Reviewing Toolbar select Final Showing Markup or Original Showing Markup.

Hide revision marks and comments: use menu View, Markup to toggle their visibility.

Add comment: use menu Insert, Comment to open balloon in side margin in which you type the comment.

CURSOR APPEARANCE IN WORD

The cursor is the image that appears in the text at the point where you are typing, the insertion point; this is sometimes called the insertion point cursor. It is different from the mouse pointer which is an image that indicates where the mouse pointer is. The two can be quite different. But many people refer to both as the “cursor.”

Both cursor and mouse pointer behavior and appearance vary in a context-sensitive manner.

The standard mouse pointer image during text editing is a vertical I-beam. You can change this. [Ctrl+Alt+plus sign] changes it to a thick cross (⊕), [Esc] resets the image.

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The standard appearance of the cursor is a blinking vertical bar that extends above and below the line. Sometimes it gets shortened to the point where it is hard to see. The blink rate and width of the bar can be adjusted with the “Accessibility Options” window opened from Control Panel (with the Display tab). This may not work on earlier versions of Word. The width of the insertion point cursor is narrower in Word than it is in Outlook.

From time to time, unpredictably, the vertical bar shrinks in height and is difficult to see. This is a bug.

Microsoft reports that the incredible shrinking cursor can be re-sized by changing the zoom of the document to 500% and then returning it to 100%. “No one knows what causes the problem or why that fixes it, but it’s obviously just a minor display issue with (luckily) a trivial fix.” It works for me. Someone else reports “I’ve also found if you open your Display Properties, make no changes, and then click OK it resolves it as well.” I find that I can reset the cursor by changing the document view from Print Layout-Zoom Page Width to Normal, then back.

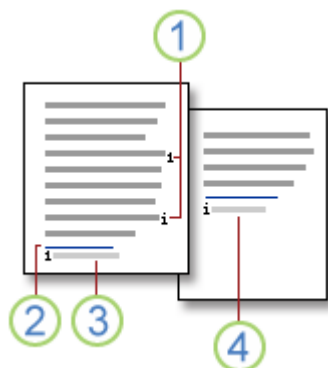
FOOTNOTES AND ENDNOTES

Footnotes consist of a footnote reference mark in the body of the document and footnote text placed at the bottom of the page just above the footer. The appearance of the footnote reference mark (as an arabic numeral) and the footnote text are discussed in the Notes Styles section. This typographical discussion is focused on the placement of the reference number.

Footnote reference marks are set as superscripts. A superscript is defined as a small character that is set partly above the x-height. Neither *Chicago Manual of Style* nor *Words Into Type* prescribes an exact size or placement. The examples in the books seem little different from how Word handles superscripts.

A footnote reference mark should be placed:

- At the end of a sentence or clause.
- Following any punctuation mark except for the dash, which it precedes.
- Following a closing parentheses although for a parenthetical phrase within a sentence, it may be appropriate to place the reference mark before the closing parentheses.
- After a quotation.
- Never in a heading.



- ① Footnote and endnote reference marks
 - ② Separator line
 - ③ Footnote text preceded by footnote reference mark
 - ④ Endnote text
- Footnote continuation separator
Footnote continuation notice

Footnotes appear at the foot of a page. Endnotes appear at the end of an article, chapter, or at the back of a book.

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You can see footnotes in their normal position in Print Layout View. You can also see them in the Normal view with the Notes pane opened with menu View, Footnotes.

Notes are placed in a document with menu Insert, Reference, Footnote. Footnotes can be placed with [Alt+Ctrl+F], endnotes with [Alt+Ctrl+D].

Notes are deleted by selecting their reference mark in the body text and [Delete].

Notes are moved by selecting their reference mark in the body text and dragging it to the new location.

Formatting Notes

Chicago Manual of Style specifies the following handling:

- “Note reference numbers in text are set as superior (superscript) numbers. In the notes themselves, they are normally full size, not raised, and followed by a period.”
- The note text is set as a paragraph with a small paragraph indent. Contiguous notes are not separated by a blank line.
- “Numbering should be consecutively, beginning with a 1, throughout each article or chapter . . . If a work contains only a handful of footnotes, they may be referenced by asterisks rather than numbers.”
- When a work requires both footnotes and endnotes, “the footnotes are usually referenced by asterisks, daggers, and so on and the endnotes by numbers.”
- “Where only a handful of footnotes appear in an entire book or, perhaps, just one in an article, symbols may be used instead of numbers. Usually an asterisk is enough, but if more than one is needed on the same page, the sequence is * † ‡ §. . . this sequence of symbols starts over for each page . . .” Should there be more than four footnotes on a page, the symbols are doubled for the fifth through eighth notes.
- “When a footnote begins on one page and continues on the next, the break must be made in midsentence . . . A short rule appears above the continued part.”

Words into Type provides additional guidance:

- Footnotes “are set apart from the text by a blank line, a short rule, or a rule the full width of the page. On a short page at the end of a chapter the note follows the text with the same space intervening; in other words, it is not dropped to the foot of the page.”
- For a continued footnote, the continuation “must be more than one line.”
- “Short footnotes may be indented like longer notes or they may be centered.”
- “References to footnotes look better thin-spaced away from the word preceding if no punctuation intervenes.” A thin space is 1/4 or 1/5 em. (An *em* is the square of the body size of the type. Typically a 10-point typeface has an em that is 10 points; so a thin space would be 2 points.)
- “In the footnote a thin space after the superior makes a better appearance than no space.”

Other directions:

- These two books do not explicitly discuss when a footnote is indented; some examples are indented (the first line), others are not.
- Adjacent footnotes are not separated by a blank line. Adjacent endnotes are separated by a blank line.
- The font size of footnotes must be smaller than the font size used in the main body of the text.

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Notes Styles

You can control the appearance of note elements:

Footnote reference mark: You can change the reference mark for all notes in one section or the entire document. Use menu Insert, Reference, Footnote to open the “Footnote and Endnote” window. When you change a setting, the [Apply] button appears. Select it to apply the changes.

You can reformat the reference mark. There is a Footnote Reference (character) style which can be changed, at least the character position.

A BIG difficulty in Word is that the same style applies to the reference mark in the text and in the footnote area. So a number that is superscripted properly in the body text is superscripted in error in the footnote text. This “feature” applies to endnotes as well. One solution to this is to manually remove the superscript format from the mark in the footnote text: select it and press [Ctrl + Spacebar.]

You can manually change the font properties of the reference mark within the body text by selecting it and using menu Format, Font to open the “Font” window. Change the desired settings and select [OK]. This is an effective way to change the raised position, the font size, and/or the use of superscript. Note this has to be done for each reference mark. You could probably write a macro to do this for all occurrences.

Footnote text: This text has paragraph style Footnote Text. Use menu Format, Styles and Formatting to open the Styles and Formatting pane, select the style, in its context menu select Modify, then in the “Modify Style” window change the various font and paragraph elements as desired. Select [OK] to apply the changes.

Word’s default formatting for footnote text is to separate it from the reference mark by one space. The paragraph format for style Footnote Text applies to the entire entry including the reference mark, so that if there is a negative left indent, it causes the reference mark to be shifted left. Consequently redefining the style will not affect the space between the reference mark and the text. You can manually add more spaces or a tab character.

You can manually remove the raised position of the reference mark within the footnote entry by selecting it and pressing [Shift+Spacebar]. Doing this one at a time can be a drag, so you might want to consider using a macro that replaces the built-in InsertFootnote command. It could also insert a period and a tab between the reference mark and the text.

There is a built-in style “Footnote” but I do not know what it controls.

Footnote separator line: Access the formats from the Notes pane by selecting contents = Footnote Separator.

You can remove the separator by selecting it then [Delete].

You can replace the separator by clip art horizontal line, lower border, or text. First delete the existing separator line, then (a) place a line or (b) type text. To place a lower border, open the “Borders and Shading” dialog box with menu Format, Borders and Shading, select a style, color, and width (or accept defaults), then in the Preview pane click the icon for the lower border, [OK]. To

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place a clip art horizontal line: in the “Borders and Shading” box select [Horizontal Line] to open the dialog box of the same name, select the desired line, and save with [OK].

You can reinstate the default separator with [Reset]. This will not delete any custom line, which must be deleted manually.

You can change the default horizontal space between the body text and the footnote separator line by changing the line’s paragraph spacing format. I like to set its Space Before = 3 pt. To change the default paragraph format: when the document is in Normal view, open the Footnotes pane with menu View, Footnotes, select Footnotes Separator, then open the “Paragraph” dialog box with menu Format, Paragraph, change the spacing and save with [OK].

Footnote continuation separator: same as for the footnote separator line.

Footnote continuation notice: same as for the footnote separator line.

Convert Footnotes to End Notes and Vice Versa

You can convert footnotes to end notes and vice versa:

1. Set document view to Normal (with menu View, Normal).
2. Open Notes pane with menu View, Footnotes. If you have both end notes and footnotes you will be prompted to choose one.
3. In the Notes pane select “All . . . notes” from the drop down list box.
4. Select the notes you want to convert.
5. Right click to open context menu, select Convert to . . . note.
6. Close Notes pane.

HYPERLINKS

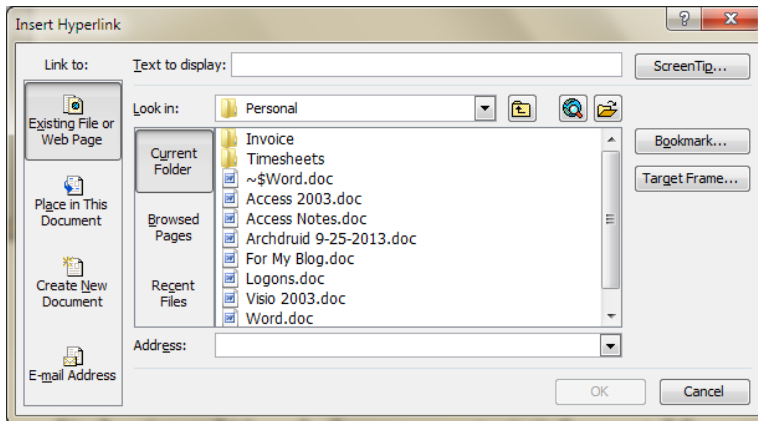
There are two methods of placing hyperlinks in a Word document: (a) Insert Hyperlink and (b) Insert Cross-Reference with hyperlink.

Styling. Hyperlinks placed with method (a) exist as REF field codes and have the same named style as the surrounding text. Hyperlinks placed with method (b) exist as regular text and have the named Hyperlink style which can be modified to suit you.

Insert Hyperlink

Use menu Insert Hyperlink to open the dialog box:

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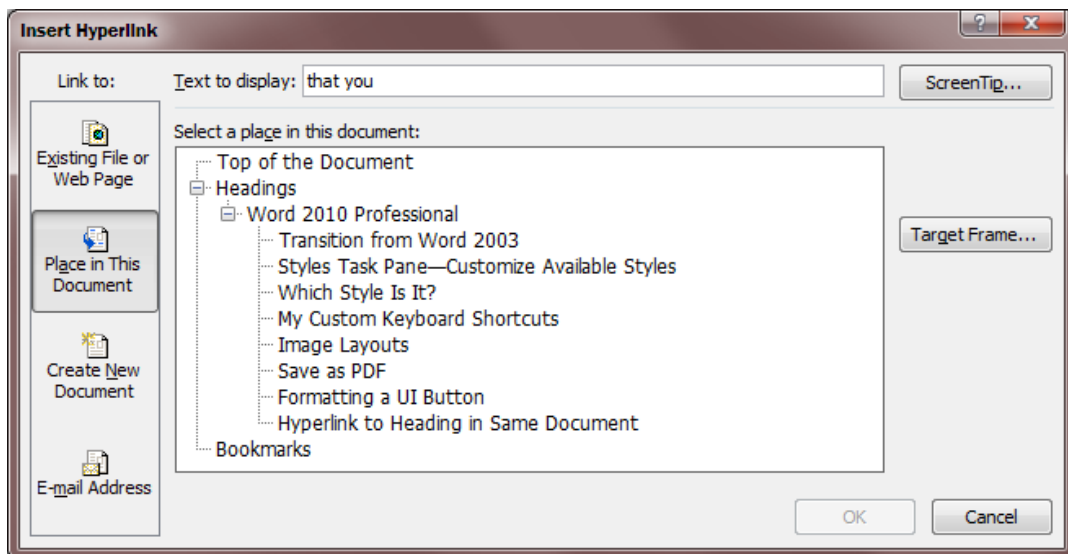
Hyperlink to Heading in Same Document

You can add a hyperlink that links to a specific heading or bookmark in the current document or to the top of the document. This lets some text in the document hold a link so that when the reader clicks it, the cursor is moved to that specific heading or bookmark.

The best part of this method is that you can control the Text to display in the link. So, you may link to a heading “Page Headers” while specifying the text of the link as “Go to Top.”

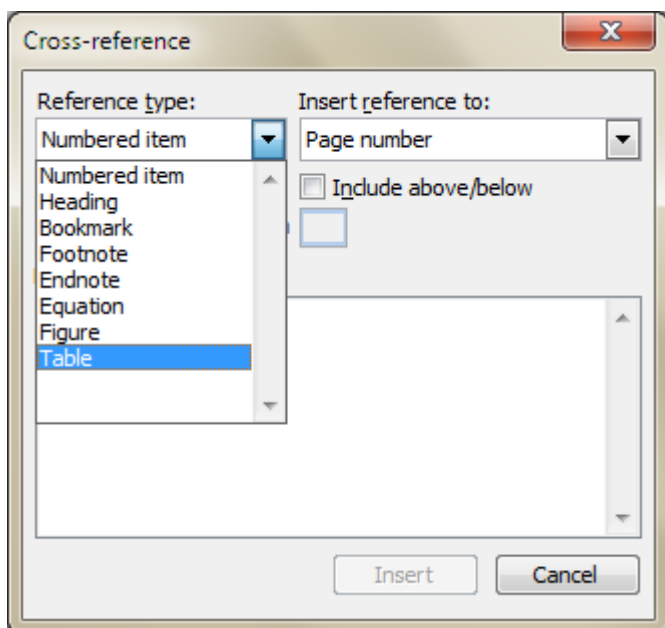
[Go to Top](#)

1. Select the text or object that you want to have hold a hyperlink.
2. [Ctrl+K] or select **Hyperlink** on the context menu to open the “Insert Hyperlink” dialog box.
3. In the **Link to** pane, select **Place in This Document**. This populates the main pane with a hierarchy of headings and a list of defined bookmarks.
4. In the main pane, select the bookmark or heading that you want to link to, then select [OK]. The dialog box closes and the text selected in step 1 is formatted to reflect the existence of the link—the built-in formatting is blue underlined text.



Insert Cross-Reference with Hyperlink

Use menu Insert, Reference, Cross-reference to open the dialog box:



You can then select a number of things to link to. You cannot change the text of the link (which you can do with the Insert Hyperlink method).

Styling Hyperlinks

Two styles affect the formatting of hyperlinks. Should you want to change the format of the hyperlinked text, you can best do this by changing the format of one or both styles. **Hyperlink** defines the formatting for the unvisited link, **FollowedHyperlink** defines the formatting for the visited link. The **FollowedHyperlink** style is “always hidden,” so you will have to change it to “hide until used” on the “Manage Styles” dialog box.

Available formats:

Font: typeface, size, color, underlining style, underlining color.

Border: border style, shading (background color)—only applies to text.

Familiarity with CSS on web pages can lead to dissatisfaction with the styling choices available to hyperlinks in Word documents.

The only way to make side margins extend beyond the text for either a box or background color is to put non-breaking spaces before and after the text, then select them and the text as the base of the hyperlink. Those margins make the bordered and/or colored area bigger, but do not look good with underlining.

Can line height be increased? Not as far as the hyperlink styling is concerned. You can increase the space above and below the line, but this has no effect on the styling of the hyperlink. You can increase the line spacing, but this also does not affect the height of the box (with or without borders) of the hyperlink.

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You cannot apply a colored background to anything but the text. If the text is contained in a table cell, you cannot select the cell for the hyperlink, you are limited to the text.

There is no hover state which can be used to restyle text. Darn.

FORMS

It is common practice in some offices to use Word to create forms. Yes, Word can be made to do this, but . . . that way grief may come. The most suitable type of form for Word is a fill-in-the-blanks form where all the user has to do is type text in certain places.

It is possible to use check boxes, list boxes, and combo boxes in Word. Personally, I would not. There is a caveat: To check off the items by clicking in the check boxes, you need to lock the form. However, when the form is locked, you won't be able to make changes to the text or layout. Furthermore, you cannot select text in a locked form.

One solution to the locking and unlocking of the form is to add a macrobutton to do that. See the discussion of macrobuttons in the Field Codes section on page 56.

The actual macro is:

```
Sub ToggleLockForm()  
' first, displays message with current state of form  
' second, toggles that state (from locked to unlocked, or from unlocked to  
locked)  
' by Susan J. Dorey 7-5-2011  
  
Dim x, y  
If ActiveDocument.ProtectionType = wdNoProtection Then  
    y = "no"  
ElseIf ActiveDocument.ProtectionType = wdAllowOnlyFormFields Then  
    y = "yes"  
Else  
    y = "unexpected"  
End If  
  
x = "is form locked? " & y  
MsgBox x, vbOKOnly, "test"  
If ActiveDocument.ProtectionType = wdNoProtection Then  
    ActiveDocument.Protect wdAllowOnlyFormFields  
Else  
    ActiveDocument.Unprotect  
End If  
  
End Sub
```

PUBLISH AS PDF FROM WORD

Adobe Acrobat's Portable Document Format (PDF) enables files to be viewed and edited across computers with different operating systems. The viewer, Acrobat Reader, is free and easily installed from Adobe's web site, www.adobe.com. PDF files are compressed, making them smaller than the

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source files, especially Word. They may handle color better than Word (true for headings and watermarks).

PDF files are easily created from Word documents. And several Word documents can be combined into one PDF file. The following directions work in an environment of Windows 2000, Word 2000, and Acrobat 4.0.

If the Word document has both landscape and portrait pages, you must be sure Acrobat is configured to “rotate pages individually.” For Acrobat 7 and Word 2003, when using Acrobat PDF Maker, select menu Adobe PDF, Change Conversion Settings to open “Acrobat PDF Maker” dialog box. Select [Advanced Settings] to open “Settings” box. Set Auto-Rotate Page = Individually. You will be prompted to save the settings (with their own name). Back on the first box set Conversion Settings = name of saved one.

There are several ways to create PDF files from Word documents which are clearly described in the Acrobat Help file (accessible from Acrobat’s Help, Acrobat Guide menu). Only three are described here. Please note that actual steps can vary by software version, both Word and Acrobat.

For me the ideal PDF file has:

- bookmarks corresponding to table of content entries
- links on table of content entries
- links on cross-references
- links on hyperlinks
- meaningful and accurate document properties
- opens with bookmarks visible

I encountered a problem with Word 2003, Acrobat 7, and Windows XP: On a 171-page Word document after using “Convert to Adobe PDF” there were no hyperlinks on the TOC entries. The solution was to (1) close the Word document, (2) in Windows Explorer select the file then use menu File, Convert to Adobe PDF. The TOC field code must include the switch \u.

Create PDF File From Word Document by Menu File, Create Adobe PDF

This approach uses the PDFMaker tool.

This is a superior approach because:

- it can set/confirm Distiller Job Options,
- it can retain document information properties,
- it can create/retain links^{*},
- it can create bookmarks, and
- it can control how the PDF file opens.

1. Create PDF file from a single Word document.
 - 1.1 Open the Word document.
 - 1.2 Select menu File, Create Adobe PDF. This opens the “Adobe PDFMaker for Microsoft Word” window.

^{*} With Acrobat 7 this retaining of links on table of content entries happens inconsistently. I have been unable to discover why. Successively created PDF files can differ. See the work-around on page 82.

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- 1.3 If using for the first time, select [Restore Defaults], then set non-default options:
 - General tab
 - Prompt for PDF filename
 - Do not delete the .ps and .log files (useful for troubleshooting errors)
 - Distiller settings = PrintOptimized
 - Output tab
 - Destination magnification = Fit page
 - Bookmarks
 - Include only Headings 1–3
 - Destination magnification = Fit page
 - Display options tab
 - Link appearance type = Invisible rectangle
 - Document open = Bookmarks & Page
 - Magnification = 100 (if no bookmarks, 75 if bookmarks)
- Select [Apply].
- 1.4 Select [Create].
2. Change PDF Open Settings
 - 2.1 Open PDF file in Acrobat.
 - 2.2 Select menu File, Document Info, Open. This opens the “Open Info” window.
 - 2.3 Select *Resize Window To Initial Page* and *Center Window on Screen*.
 - 2.4 Confirm/correct other settings:
 - Initial View = Bookmarks and Page.
 - Page Number = 1
 - Magnification = Single Page.
 - 2.5 Select [OK].
 - 2.6 Save file.

That said, there are some bugs that require some unexpected actions at this point. The macro PDFMaker does not stop by itself; to do that you must [Cancel] its window after the PDF file is actually created. The newly-created PDF file may not open automatically in Acrobat, so you should open it manually in order to verify and possibly correct the document information settings.

Create PDF File From Word Document by Printing to PDFWriter

This approach works easily but has some limitations which make it undesirable:

- it does not create/retain links, and
- it does not create bookmarks.

Create PDF File From Word Document by Printing to Distiller

This approach works easily but has some limitations which make it undesirable:

- it does not retain file properties,
- it does not create/retain links, and
- it does not create bookmarks.

1. Confirm/correct Acrobat Distiller processing options.
 - 1.1 File Preferences other than defaults: ask for PDF file destination, view PDF when using Distiller, view PDF when using Distiller Printer.
 - 1.2 Job Options other than defaults: embed all fonts used in document, allow PostScript file to override job options, use Prologue.ps and Epilogue.ps (not sure what these do).

Useful Microsoft Word Techniques

If combining several Word files into one:

2. Create concatenated Word file.
 - 2.1 Run macro *BuildSectionName*.
 - 2.2 Change publication date on title page and possibly version number.
 - 2.3 Save as file All.doc* in the same directory.

Create PDF file from Word file:

3. Create PDF file All.pdf.
 - 3.1 Open Acrobat Distiller.
 - 3.2 In Word, print the All.doc file using the Acrobat Distiller printer driver. Do not print to file.
 - 3.3 Save as All.pdf in the same directory.
4. When a newly-created PDF file is opened in Acrobat, set document info properties:
 - 4.1. Use File, Document Info, General to set title, subject, and author.
 - 4.2. Use File, Document Info, Open to set Magnification = 75, and select Resize Window to Initial Page.
 - 4.3. Save file.
5. Close file and reopen to confirm settings.

Edit PDF Document Properties and Set to Open With Bookmarks

With the PDF file open in Acrobat, use menu File, Document Properties to open the “Document Properties” dialog box. Check the descriptive properties on the Description tab, correcting as necessary. On the Initial View tab, set Document Options Show to “Bookmarks Panel and Page.” Close the dialog box. Save the file.

Concatenate Multiple Word Files Into One PDF File

The general approach is to create a PostScript file for each Word file, then concatenate them, and create a PDF file from the group file.

This is based on a PostScript file, manual.ps, which names the individual PS files to be distilled together. Should the filenames and/or directory names change, you must edit the text file to correct the names and/or the sequence in which they are to be concatenated. Manual.ps is cloned from Runfilex.ps, provided by Adobe and found in the Distiller/Extras directory.

Steps:

1. Confirm/correct filenames in manual.ps. Use as many versions (with different names of course) as suits your work.
2. Create PostScript file for each Word file.
 - 2.1 In Word, print using the Acrobat Distiller printer driver. **Do** print to file.

* The All.doc name is used for the file that holds all chapters in a manual section with a title page, table of contents, and table of figures. If you are concatenating files that represent a different grouping, choose a different filename.

Useful Microsoft Word Techniques

- 2.2 Save as all.prn, as All file types (*.*)
3. Create one PDF file.
 - 3.1 In Acrobat Distiller, open manual.ps.
 - 3.2 Save as manual.pdf, as type PDF.
4. When a newly-created PDF file is opened in Acrobat, set documentation information properties:
 - 4.1. Use File, Document Info, General to set title, subject, and author.
 - 4.2. Use File, Document Info, Open to set Magnification = Fit in Window, and select Resize Window to Initial Page.
 - 4.3. Save file.
5. Close file and reopen to confirm properties.

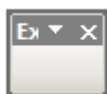
An alternative approach is to create separate PDF files and then merge them into one. In Acrobat 7, you can create a PDF from multiple files; use the Document menu. You can also add pages to an existing file. Sometimes the easiest approach is to insert one file into another, then delete the unwanted pages.

PROBLEMS AND MY WISH LIST

Word has bugs which persist through the software versions. (Which makes me wonder what value Microsoft gives to resolving them.) This section is an indulgence in that I am using it to complain—in a positive manner.

Problems Copying Text to Different Document

I discovered the hard way (what else?) that when I copy text from doc A to doc B and doc A contains macros (in modules), those macros are also copied. Then, if the macro security setting is High, whenever I open doc B, I see an unwanted Exit Design Mode toolbar;



My solution was to (1) reduce the security setting to Medium and (2) remove the macros. If I wanted to copy macros, I would use Organizer.

Wish List

- a. For any piece of content tell me what is controlling the format—local formats, template formats, which template.
- b. When I write a new list item and the preceding paragraph was not coded for bullets or auto number, and there is before that such a paragraph, ask me if the new list item is a continuation or not.
- c. Change the relationship between sections and header/footer and change the UI. Provide a view of the document to show just the sections with the first line of text, the columns, header, footer, page orientation, and margins.

Useful Microsoft Word Techniques

- d. Provide a container for paragraphs comparable to the HTML DIV that will hold formatting, especially margins, paddings, borders, and backgrounds. Even better, adopt the HTML box model.
- e. Create a different container for columns than a section. Then do away with continuous sections. Do not allow a container, section or otherwise, that contains multiple columns to have a header and footer.
- f. Do not copy macros when copying text.
- g. Correct the UI for formatting lists. Provide access to all the elements of the list item: placement of the bullet/number relative to the left page margin, space between the bullet and the list item text, hanging indent, line width, line height, list margins and padding; typeface, size, and color; typeface, size, and color of bullet or number.

COMMENTS AND CORRECTIONS

Comments and/or corrections can be useful tools when a document needs review by others. Microsoft calls corrections “tracked changes” and classifies the two as “markup.”

Comments

Comments are a nifty way for a reviewer to dialog with an author. They exist on a higher level than the actual document content, so they do not disturb the page layout and flow. You (Ms. Reviewer) can enter comments wherever they best fit content-wise. Comments include the comment text, the commenter’s initials, and their date-time.

How to find and read comments

The location of comments depends on which view style you are using.

- In Print Layout view, the comments appear in the page margins.
- In Normal (or Draft) view, the comments appear in the body of the text, but only when the Reviewing toolbar is visible.

The appearance of comments is based on Track Changes settings on the Options dialog box (accessible with menu Tools, Options). The text selected for the comment has a colored background and the initials of the commenter has a colored background. The comment text itself has a colored background. (For me, it is pink.)

The appearance of comments is based on Track Changes settings on the Options dialog box (accessible with menu Tools, Options). The text selected for the comment has a colored background and the initials of the **commenter** has a colored background. The comment text itself has a colored background. (For me, it is pink.)

Comment [SJD1]: this is a test of ...

You can rest the insertion point over the balloon to display the name of the reviewer.

How to enter comments

1. Select the text or item you want to comment on, or click at the end of the relevant text.
2. Select menu Insert, Comment.
3. If the view style is Print Layout, a Reviewing Pane appears at the bottom of the screen; if the view style is Normal, a balloon (this is Microsoft’s term, it is a poor representation of the area where you can type) appears in the side margin.
4. Type the comment text in the comment “balloon” or in the Reviewing Pane, whichever is available.

Useful Microsoft Word Techniques

Respond to comments

To respond to a comment, click in the comment you want to respond to, and then click Comment on the Insert menu. Type your response in the new comment balloon.

How to delete comments

Comments can be deleted individually: right click to open context menu, select Delete Comment. Luckily, the [F4] key will repeat Delete Comments.

There is also a command on the Reviewing toolbar to delete all comments.