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The Seven Laws of Word's Outline Numbering

*What to do — and not do — when using
Word's outline numbering linked to styles*

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The Seven Laws of Word's Outline Numbering One: Numbering is a document property.

Two: Create your numbering scheme inside the document before you do anything else.

Three: The most effective way to create and manipulate outline numbered schemes is through styles.

Four: Always set your paragraph indents through Format | Style | Modify | Format | Numbering | Customize.

Five: Each outline numbered level should have an appropriate style specified under “link level to style.”

Six: Never choose an inactive view in the numbering list gallery.

Seven: Never assume that outline numbering has been correctly and consistently applied throughout the document.

Definition of Terms

1. *Digging to China* – the phrase we like to use for modifying an outline numbering scheme (*the correct way*): **Format | Style | Modify | Format | Numbering | Customize**.
2. *The ListTemplate* – Word-speak for the defined outline numbering scheme within a document.
3. *The Jason Tab* – our name (derived from the unstoppable serial killer of *Friday the 13th* fame) for the native *Word* “feature” which causes an extra tab stop to be inserted in numbered paragraphs, positioned .25" after the outline number. The Jason Tab appears each time you visit the Customize dialog box—whether you make a change or not!
4. *The List Gallery*– The seven sample *views* of numbering schemes displayed when you choose **Format | Style | Modify | Format | Numbering**.
5. *The Rabbit Hole* – The *active* view (outlined in blue) in the List Gallery that should be chosen when you need to **Customize** your linked outline scheme.

Penalties for Violating any of the Seven Laws of Outline Numbering:

1. All links between styles and their associated levels will be lost and you'll have to relink them all by "Digging to China" (see *Definition of Terms*)
2. Indents on all numbered paragraphs may suddenly collapse to the left margin Your electronic comparison tool may generate "Illegal Operation" or "Fail Safe" messages, or you may end up with inaccurate numbers reflected in your comparison result Restarting a numbering level may not work as expected Numbers may suddenly disappear, no longer be sequential, or all turn into "1's", on previously-numbered paragraphs

The First Law of Outline Numbering:

Numbering is a document property. While the full meaning of this statement will not become clear to you until you've exercised, customized, applied and/or corrected problems associated to numbering used in a Word 97/2000 document, the mantra is: *Numbering is a Document property.* Fundamentally, this concept is made difficult because we're more accustomed to legacy implementations of the paragraph numbering task (read: WordPerfect's way), where *codes* at the position where the number was located defined the numbering scheme, and the first-line indent of the text of a numbered paragraph was managed not in the numbering scheme, but directly in the paragraph itself.

These old habits and concepts, in many respects, work in direct conflict with Word's outline architecture: paragraph indents – before and after the number – are managed through the defined numbering scheme (e.g., List Template) itself. The concept of introducing a schemes' definition only "where needed" (copying the[Outline] code from one document into another, as in WordPerfect, for example) does not apply. In Word, a series of Outline Styles are, in effect, available for the whole document, then 'applied' where needed. This means that the styles, the list template — and the link which joins the two — must be carefully, and correctly defined in each document.

The Second Law of Outline Numbering:

Create your numbering scheme inside the document before you do anything else – particularly before you bring outline numbered paragraphs into the document. This means that you *should not* copy outline numbered paragraphs from Document A into Document B, without having *first* created the corresponding numbering scheme in Document B.

Method 1:

1. Copy Document A, creating Document B Open, then edit the contents of Document B

Method 2:

1. Create Document B Create Numbering Scheme in Document B Copy Text from Document A Paste Text into Document B

Special Alert: Because Word uses a document-wide index to keep track of all of the links between the List Template and styles, deleting a style linked to a numbering scheme can unravel the entire document's outline numbering. In other words, *don't delete* any outline numbered styles in a document unless you're sure the styles are not part of the active list template (e.g., the one applied to your content), or you are prepared to recreate and relink all styles and numbering schemes in the document.

If you have already lost your style links: Some third-party numbering solutions provide their own means of correcting this problem. In *other outline numbered documents*, we have found this task to be most successful when you follow these steps:

Fixing broken links in Numbered Documents:

1. Select all the text of the document Cut it (Ctrl-X)
2. Delete all the outline-numbered styles Rebuild all the styles in the document using Format/Style Gallery
3. Once styles and schemes are in place, paste the text back into the document You may have to Ctrl+Q (*Reset Paragraph*) to remove manually-applied paragraph attributes on some paragraphs.¹

The Third Law of Outline Numbering:

The most effective way to create and manipulate outline numbered schemes is when they are linked to styles – *stay away from* Format | Bullets & Numbering or the Bullets & Numbering toolbar icons when your document requires Outline Numbering. Directly-applied outline numbering offers the user no chance to manipulate the leveled paragraphs in a *document-wide manner* – they must *visit each paragraph* to change tabs, line spacing, paragraph

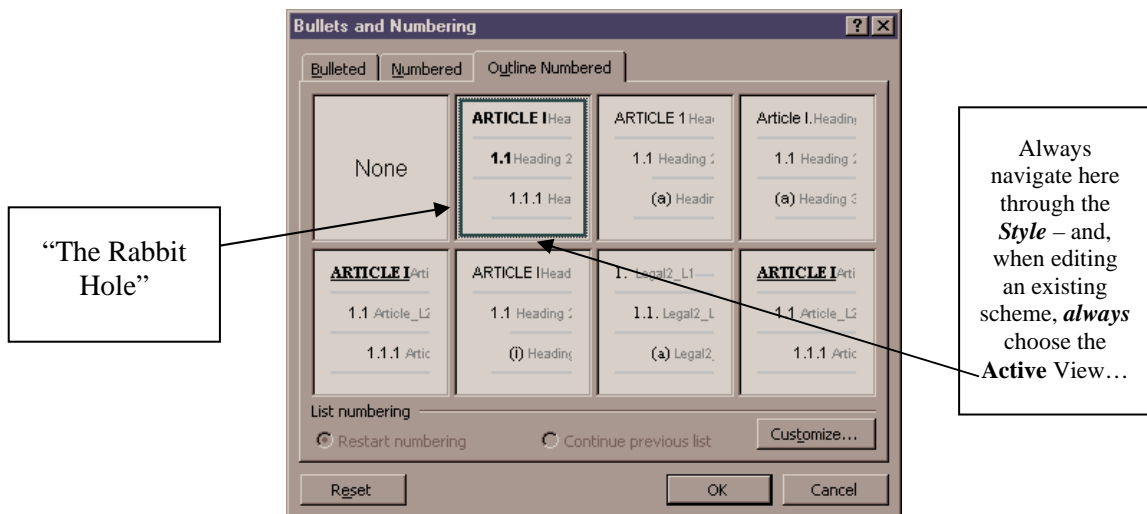
¹ To *automate* this task, see **DocXResetNums** code at end of this document.

spacing and other paragraph attributes.² The only time “Outline Numbered” should be seen as a directly-applied attribute would be when the user chooses to *Restart* or *Remove* numbers from the current paragraph.

The Fourth Law of Outline Numbering:

Always set your paragraph indents through Format | Style | Modify | Format | Numbering | Customize – DO NOT apply paragraph indents directly to the paragraph, use Format | Paragraph indent options in any way, or even set paragraph indents in the Format | Paragraph dialogue on the numbered style. On any paragraph where you want to alter the indent of the paragraph number, and assuming that your numbers are linked to styles, you should position your cursor on the first Level 1-numbered paragraph appearing in the document, then “Dig to China” as it were, using:

Format | Style | Modify | Format | Numbering | Customize³

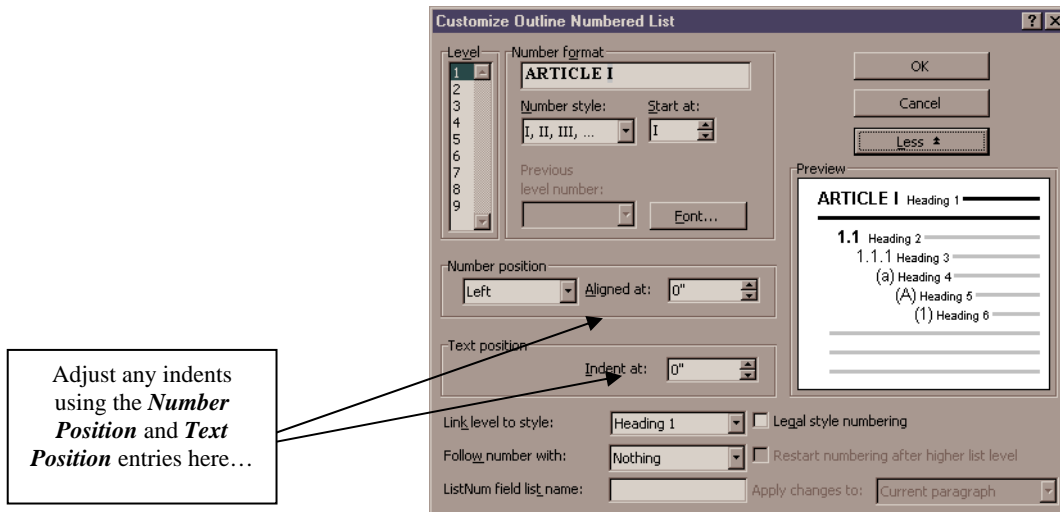


Adjust your text and numbering indents at the *Number Position* and *Text Position* entries on the Customize Outline Numbered List dialog box. You can use the Preview pane on the Customize dialog box to verify that your levels of indenture and your wrap back to the

² Directly-applied numbering can appear where the user has made a conscious decision to bypass *Styles* when applying numbering, in cases where documents were **File | Opened** from other applications (*WordPerfect* and earlier versions of *Word*), or when paragraphs have been *copied* and *pasted* from other documents. Mixing *directly-applied numbering* with *outline numbered styles* can cause serious problems in a document including: the wrong number/number format being applied, the wrong paragraph attributes being applied, **or** where you choose to *apply* a heading style to an *already-numbered* paragraph, the two attributes can *cancel each other out*, leaving you with no number applied

³ **VERY IMPORTANT:** The List Gallery will automatically navigate to the scheme active on this paragraph. Do not choose another “view” in this gallery or you will be manipulating a different scheme. If you do choose another scheme, you must relink all the styles with this new choice, something neophyte users do not understand – and they will complain bitterly at the task or the imminent outcome of not having performed this task...See also The Seventh Law.

left margin are correct. Once you're done with Level 1, click down through each of the levels of the scheme you will be applying or customizing in this document. Click OK⁴ here, then OK, then Close.



The document property for the outline scheme linked to the current style is now set. Once set, if you visit the **Format | Paragraph** dialog box, you'll find that the indents here automatically reflect this change – a very good sign, indeed.⁵ If the indents *don't* reflect what you set (or thought you set) in the Customize dialog box, *don't change the settings on the format dialog!* Return to the Customize dialog box, choose the Level with the incorrect indent, then modify the indent settings there.

“The Jason Tab” in Word 97 or 2000

You will find that visiting the **Format | Style | Modify | Format | Numbering | Customize** dialog box causes some of your outline leveled paragraphs to inherit an annoying (and unsolicited) tab stop, positioned .25" after the left indent. This will occur on any level where the number is defined to be followed by a tab character.

To remove this tab stop, 1) on the ruler, drag the tab stop off the styled paragraph, click inside the Style name in the Formatting Toolbar, then press Enter and answer OK to “Update the style to reflect recent changes?”, or 2) edit each of the affected outline styles

⁴ It is interesting to note that each time you click OK at the Customize dialogue box, you have either **refreshed** the active ListTemplate (Word's name for the outline numbering scheme itself), or **created a new numbering scheme** in your document. Since these schemes are not necessarily named by default, users are often unknowingly adding unnecessary numbering schemes to their documents, and/or are visiting this location, refreshing or updating the active scheme of the document – sometimes with repercussions the user does not fully understand.

⁵ “Outline Numbered” becomes a directly-applied attribute when you have chosen to “Restart” numbering on certain paragraphs. This is OK (Word treats your normally sequential outline scheme as belonging to the style, and any restarted numbers as directly-applied – are you confused enough, yet?). Indents directly-applied to the paragraph, rather than modified in the scheme, however, are not correct.

in turn (**Format | Style | Modify | Format | Tabs**, choose ClearAll, then OK, OK and Close). DocXtools users can run “Remove Jason Tab” on the DocXtools | DocXpert | Cleanup | Tools drop-down menu to remove the Jason Tab from all affected styles simultaneously.

Like the sequel-driven serial killer from Friday the 13th, expect Jason’s frightening return – in this case, each time you “Dig to China” and crawl through “The Rabbit Hole”...

“The Jason Tab” in Word 2002 or 2003

You’ll be happy to learn that beginning in Word 2002, Microsoft provided capability to set the tab stop location, thus controlling placement of the tab formerly known as ‘The Jason Tab’. A tab stop is automatically set when a number or bullet is defined “Followed By” a tab; by default this tab stop appears .25 inch to the right of the number indent. This interface element is shown in Figure 1 below, followed by a screen capture of the same dialogue in a Word version previous to Word 2002 (see Figure 2).

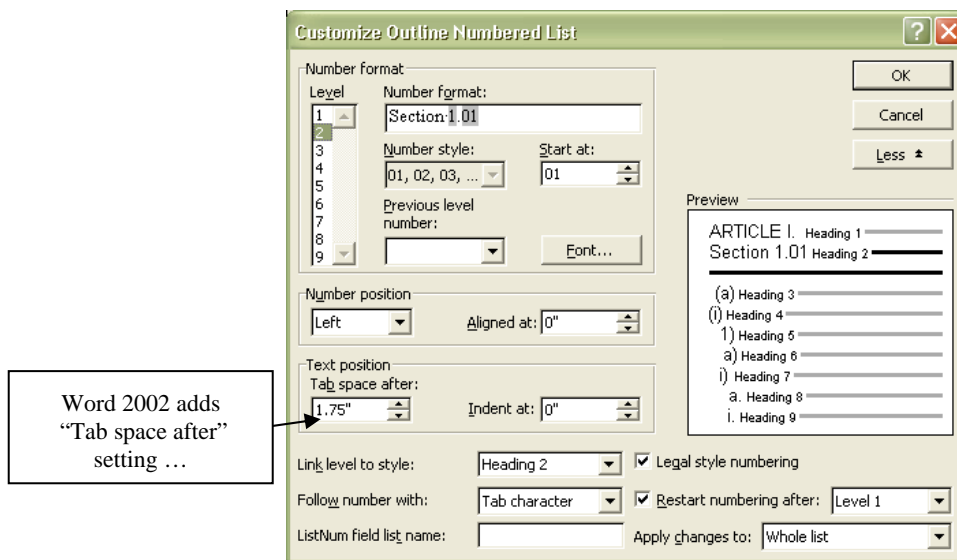


Figure 1 - Word 2002 dialogue introduces “Tab space after” setting

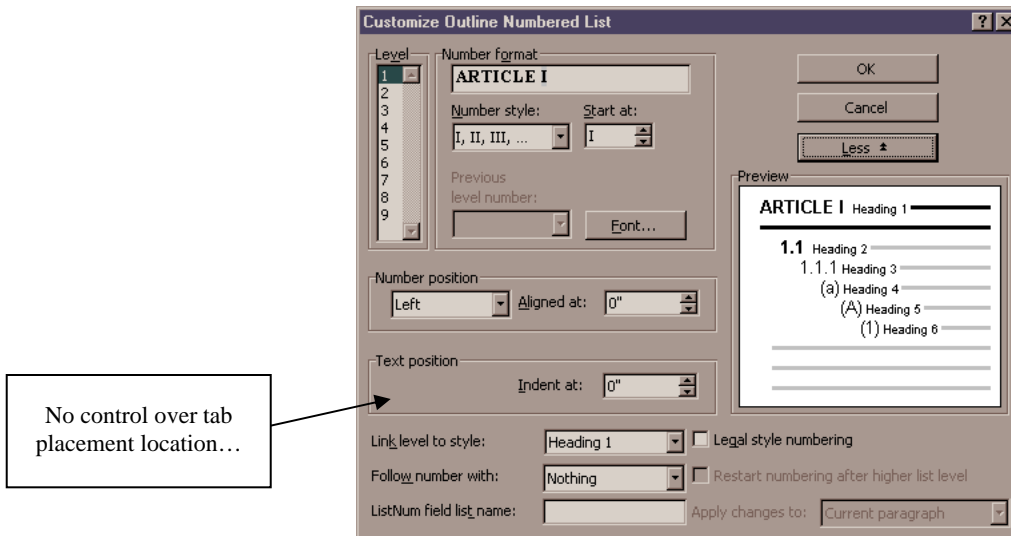


Figure 2 - Word 2000 dialogue provides no control over tab

Special Note to Users of Word 6/7 Heading Numbering or Those Working on a Document Which Came from Word 6/7 and Contains Heading Numbering Already: Because the attributes which enable you to manipulate a first-line indent of the paragraph text were not available in Word 6/7, users directly-applied paragraph indents to the paragraph or they adjusted them by adding them into the Heading Style itself (Format/Style/Modify, then Format/Paragraph). When these documents are brought forward to Word 97/2000 ***they are in direct violation of The Fourth Law of Outline Numbering***. Follow the appropriate steps to correct for this: “Dig to China” to Customize the active outline numbering scheme, crawl through “The Rabbit Hole”, adjust the Number Position and Text Position here, then click OK. All paragraph indents should now be meshed with the numbering scheme, and unanticipated behaviors should be minimized.

Word 6/7 Formats which violate the Fourth law in Word 97/2000:

This Heading Numbering format may be compromised coming from Word 6 and Word 7, opened in Word 97/2000.

This Heading Numbering format may be compromised coming from Word 6 and Word 7, opened in Word 97/2000.

Word 6/7 Formats which Acknowledge the Fourth law in Word 97/2000:

This Heading Numbering format, on the other hand, will not violate The Fourth Law of Outline Numbering when coming from Word 6 or Word 7 Heading Numbering, and opened in Word 97/2000.

The Fifth Law Of Outline Numbering:

Each outline numbered level should have an appropriate style specified under “Link Level to Style” in Customize. A valid Outline scheme will have an appropriate style linked to each level of the numbering scheme, viewable by clicking on the “More” button in the Customize Outline Numbering dialog box.

So, for generic heading styles, you’ll see **Level 1** numbers linked to the **Heading 1** style, **Level 2** linked to **Heading 2**, and so on. Third-party numbering solutions always link their levels to styles, although the names of the linked styles may vary. If these settings are not present, something won’t work: restarting schemes, assigning a new number, numbers that had been present will disappear, or will suddenly and without warning become “1’s”.

The Sixth Law of Outline Numbering:

Never choose an *inactive* view in the *numbering list gallery*, unless you’re prepared to re-link all your styles and remove directly-applied attributes. In Alice-Speak, you should always crawl through “The Rabbit Hole.” When on a numbered paragraph, or working in a document which contains outline numbering already, *never* choose any one of the “Gallery” views for a numbering scheme that isn’t active (the *active* view will be bordered).

The selected List Gallery view is the scheme that is in force for the current numbered paragraph – and if the document is set up correctly, *active for the whole document*. Once the user chooses another view in this Gallery, *they’ve broken all the style links for the currently-applied numbering scheme*, and unless they know that they have to put them back in place (which they typically don’t), there will be trouble ahead. Unknowingly, the user has also added another scheme to the document – and guess what! Once List Templates are created in a document, they cannot be deleted⁶.

The Seventh Law Of Outline Numbering:

Never assume that outline numbering has been correctly and consistently applied throughout your document. Trouble can occur when numbering levels and *styles* are not completely linked *or* paragraphs with numbered styles have had numbering *directly-applied* to them. The latter can occur when numbered

⁶ There is a means by which List Templates can be removed from a document, however, the intervention can be somewhat ‘drastic’ depending on the document: use File | SaveAs | Word 6/95. Since the List Template was not introduced until Word 97, this eliminates them from the document, but can mess with your numbering as well! For more about the List Template, check out Microsystems article, “What is the ListTemplate and Why Do I Care?” at www.microsystems.com/pdfs/ListTemplates.pdf.

paragraphs are copied into a document, and the properties of these paragraphs are different from the scheme active in the document (a direct violation of *The Second Law*). Tools available to isolate or resolve such conflicts are:

- *Word 97 & 2000: What's This?* (under **Help**) or **Shift+F1** reveals which properties in a given paragraph are part of its style, and which are directly-applied;
- *Word 2002 & 2003: Format | Reveal Formatting | (check "Distinguish style source")* reveals indentation on the paragraph, and on the list as shown in Figure 3 below;

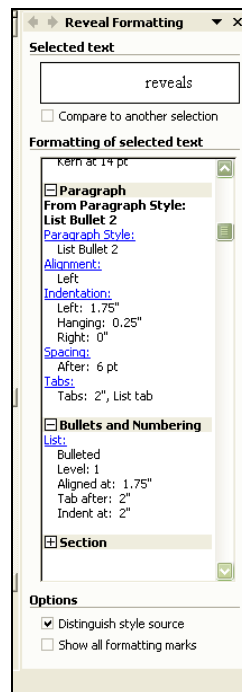


Figure 3 - Word 2002 Reveal Formatting Task Pane Ctrl+Q removes any directly-applied attributes from the selected paragraph;

- *Digging to China* re-establishes the appropriate style links for each level by visiting **Format | Style ... Customize** – See **The Sixth Law**); and DocXtools' "*Reset Numbered Paragraphs (Ctrl-Q)*" on the DocXtools | DocXpert | Cleanup | Tools drop-down menu will remove directly-applied paragraph formats from all numbered paragraphs to reveal the styles' properties.

Corollaries to the Seven Laws One: Special Characters can cause outline numbering to go out of sequence in Word 97.

Sometimes the outline numbering in a document is out of sequence even though you're sure you've created your scheme following the Seven Laws, like this:

Section 1. This is some text.

1.1 A sub text paragraph

1.2 More sub text

1.1 This restarts although it shouldn't

1.2 This should be 1.4.

This problem is caused by the presence of the TM (Trademark) or the € (Euro) special characters. The difficulty is that it happens intermittently, and not in every document where outline numbering and the symbol are present, and randomly within the document. Sometimes the offending symbol is in the paragraph which is restarting, but sometimes it is in the one above, and occasionally the symbol is nowhere near the paragraph which incorrectly restarts.

This appears to be a Word 97 issue—it does not occur in a document created in Word 2000, and is corrected when opening and saving in Word 2002 or Word 2003. If you don't have access to Word 2000, 2002 or 2003, your choices in Word 97 are more cumbersome. For TM, you could type "TM," then superscript it. Or substitute the Unicode version of the symbol with a non-Unicode version (try the "Symbol" font; it is not Unicode). Unfortunately, if your problem is with the €, there is no non-Unicode character. In this case, you will have to spell out the symbol name ("Euro") rather than using its symbol. *For Microsoft's "take" on this issue, see Technet Article Q215343. For more information about the Euro symbol itself, visit www.microsystems.com/docxpert, and read "The Euro Symbol: Its Use and Known Issues."*

Two: Never choose the font name in more than one dialog box.

Doing this can cause the creation of a unique font description, "Times New Roman Bold, Bold," which is wreaking all kinds of havoc.

This problem occurs most often in Outline Numbered styles, when you've defined the number to be bold in the Outline Numbering|Customize dialog box, and then also defined the

paragraph to be bold by explicitly selecting the font name and attribute in the Format|Style|Modify|Format|Font dialog box. It is this explicit font name and attribute choice that is the crux of the problem (and people seem to do it because the font name and attribute are already entered in the text boxes).

If all you want to do is make the paragraph text bold, then in the Format|Font dialog box, if the font name is entered, clear it, and enter the bold attribute only. This way, Word will simply bold whatever is the default font.

If the problem already exists, then to remove the "Times New Roman Bold, Bold" font, choose Tools|Options|Compatibility|Font Substitution, change "Times New Roman Bold" to become "Times New Roman." Do not use Default. Finally, be sure to click "Convert Permanently." The font will be eliminated, but be aware you may lose some of the bolding in your document. You can find out more about "Tricky Times New Roman Bold, Bold" at <http://www.microsystems.com/pdfs/tnrbb.pdf>.

Three: If you're working in Word 2002, be sure to grab the hotfix from Microsoft to ensure that indents on legacy Word files are properly interpreted.

Word 2002 offers many curative properties to the underlying ListTemplate, however, introduces on new one in some environments: improper collapse of the paragraph indent. In "The Migratory Paths of Word" at <http://www.microsystems.com/pdfs/TheMigratoryPathOfWord.pdf>, you'll find details about download of a hotfix to correct this problem.

DocXResetNums Code:

We've found the following macro code successful at sifting through the document, locating any outline-leveled or outline-numbered paragraphs, and, if found, executing Ctrl-Q to reset any directly-applied attributes of the paragraph.

Disclaimers: Please note that this macro will:

- Clear any directly-applied numbering, such as those applied with the Bullets/Numbering toolbar;
- Clear any directly-applied paragraph formatting (Indents, Alignment, Line Spacing, SpaceBefore/SpaceAfter, etc.) associated with a numbered or non-Body Text paragraph;
- Clear any Restart or Remove Numbering attributes associated with a numbered paragraph; and will Clear any directly-applied attributes of a Heading-styled or Title-styled paragraph.

In short, expect other fallout from use of this macro! However, once run, you'll be able to reassess the document as a whole, knowing that intrusive directly-applied attributes are not masking the underlying outline scheme. You'll then be able to resume any missing outline numbering by applying the appropriate-leveled style, reapply any missing paragraph attributes by adjusting the style (see the Third Law regarding indents), and/or visit any paragraphs where Remove or Restart are indeed applicable, reapplying these in a more orderly fashion.

```
Sub DocXResetNums()  
' Sifts through document, locating outline-leveled or  
numbered ' paragraphs, resetting them to expose only the  
properties of the ' style below...  
Dim para As Variant  
  
For Each para In ActiveDocument.Paragraphs      If  
para.Range.ListParagraphs.count <> 0 Or _  
    para.OutlineLevel <> 10 Then                para.Reset  
End If Next para  
  
End Sub
```

Acknowledgements

Dedicated to: Those Who Have Painfully Ferreted Out These Answers, And To All Those Who must Troubleshoot, Defend, Minister, Uphold, or Recover From Violation of The Seven Laws

Significant Insights Provided By: Lori Rittelmeyer Linda Sackett, The Legal MacPac Dan Fisherman, The Legal MacPac Doug Miller, The Legal MacPac All Microsoft TechNet/Knowledge Base Articles Posted to Date

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