



# DEXembed, WordEmbed, and IndexDeconstructor: How Do They Work and Why Would I Want to Use Them?

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# How do DEXembed and WordEmbed work?

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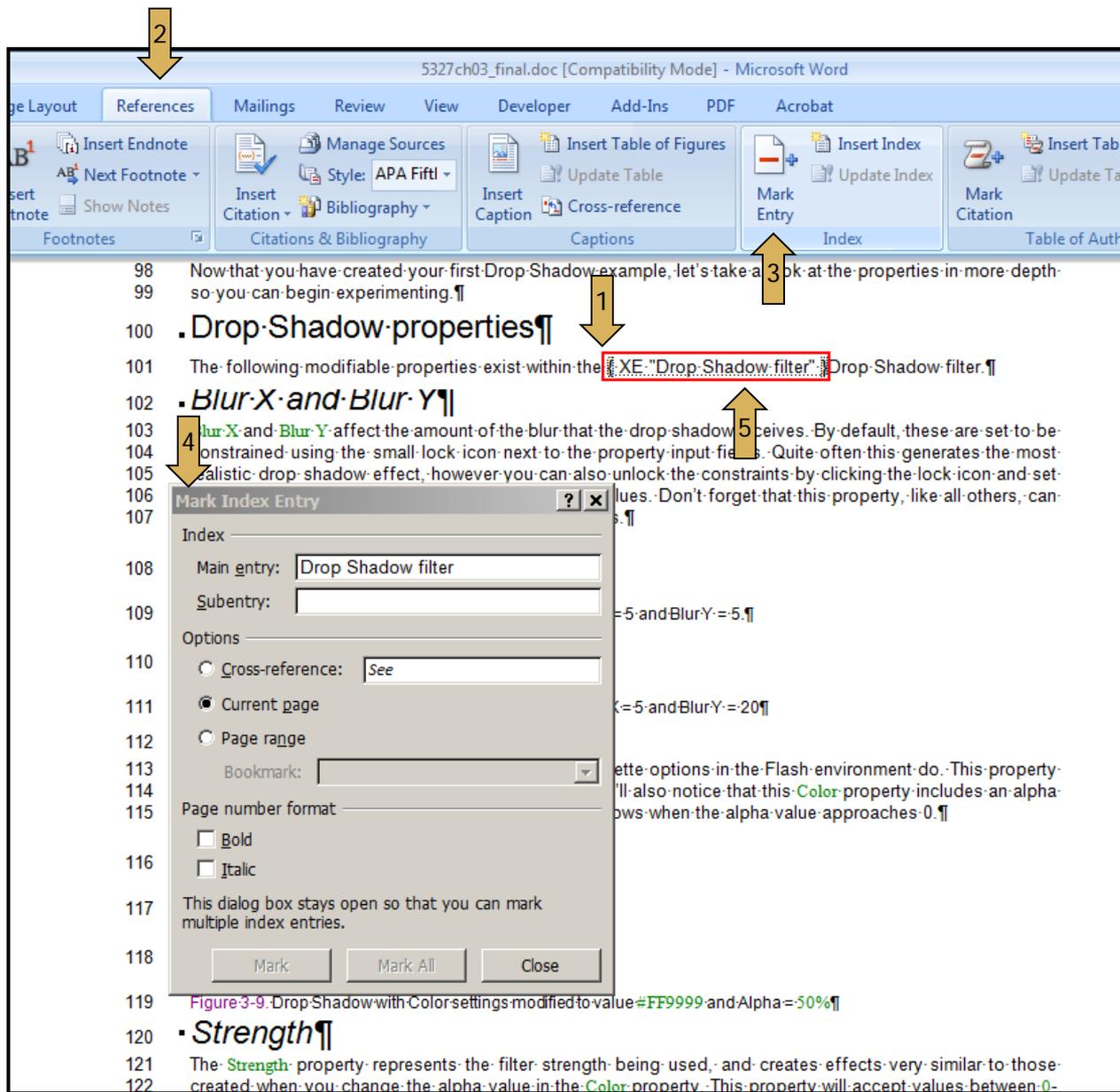
- Import CINDEX, MACREX, Sky (C/M/S) index entries into MS Word in one fell swoop
- Third-party (.dot file) add-ons to MS Word
  - ▣ Jack Lyon ([www.editorium.com/dexembed.html](http://www.editorium.com/dexembed.html))
    - MAC and Windows versions
    - 45-day free trial
    - \$79.95 for single user
    - Docbook XML and LaTeX
  - ▣ James Lamb ([www.jalamb.com/wordembed.html](http://www.jalamb.com/wordembed.html))
    - MAC (Parallels) and Windows versions
    - Demo version limited to 10 index headings
    - \$130 user license
    - CUP-XML



# Why would I want to use them?

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- ❑ Bypass limitations of Word's indexing module
- ❑ Take advantage of powerful features in C/M/S dedicated indexing packages
  - ❑ Real-time previews of indexes
  - ❑ Autocomplete during data entry
  - ❑ Sophisticated formatting options
  - ❑ Powerful editing capabilities (cascading changes)
  - ❑ Temporary groupings



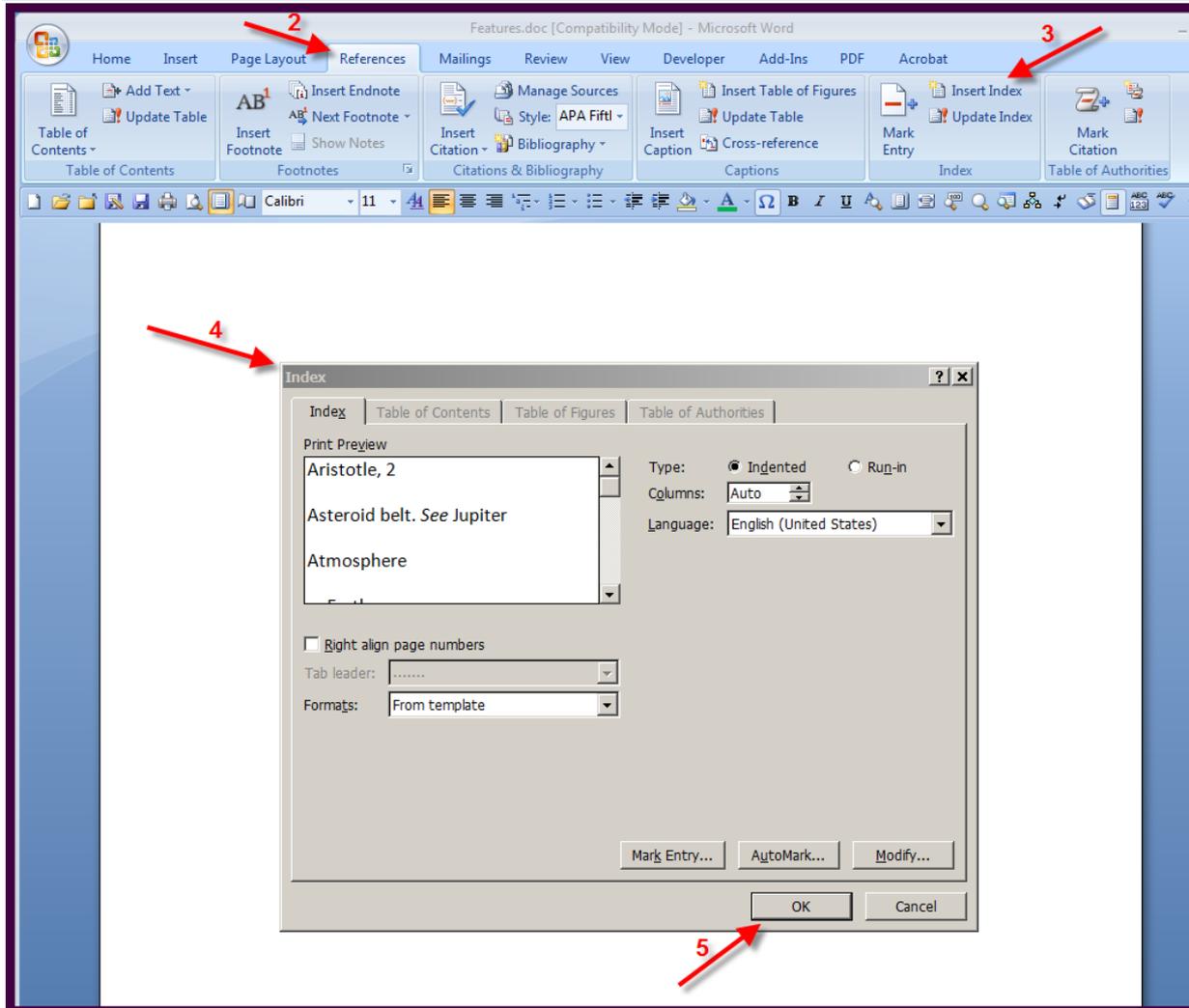
## Step 1. Creating embedded index entries using Word's indexing module

1. Insert cursor at desired location for index entry.
2. Select References tab.
3. Select Mark Entry option.
4. Mark Index Entry dialog box opens. Create index entry. (Alt+Shift+X shortcut)
5. XE field (index entry) is inserted in desired location.

# Step 2. Generating index in MS Word

## Option A: Generating at end of *single document*

5

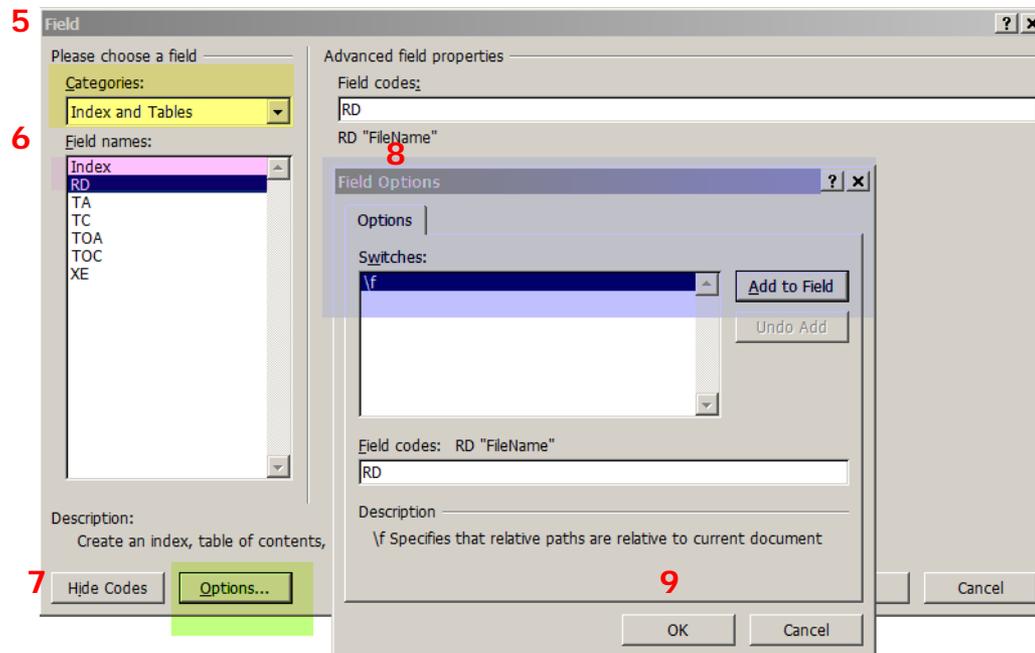
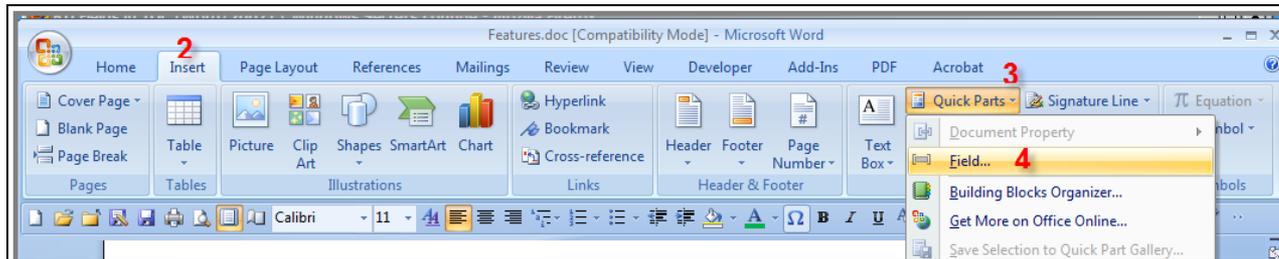


1. Position cursor at end of document.
2. Open References tab.
3. Select Insert Index option.
4. In Index dialog box, select format options desired.
5. Click OK to generate index.

# Step 2. Generating index in MS Word

## Option B: Generating in separate file for *multiple documents*

6



1. Create new file.
2. Open Insert tab.
3. Select Quick Parts option.
4. Select Fields from dropdown box.
5. The Field dialog box displays.
6. From the Field names: section, select the RD field.
7. Click on Field Codes (which turns into Hide Codes) then Options.
8. The Field Options dialog box will display identifying supported switches for the Index field.
9. Select the switches desired and click OK.
10. Repeat steps 6-9, one time for each chapter to be included for indexing.
11. Position cursor at end of RD example above and follow Step 1. instructions for generating index.

```
{ RD \f "ch01.doc" }  
{ RD \f "ch02.doc" }  
{ RD \f "ch03.doc" }
```



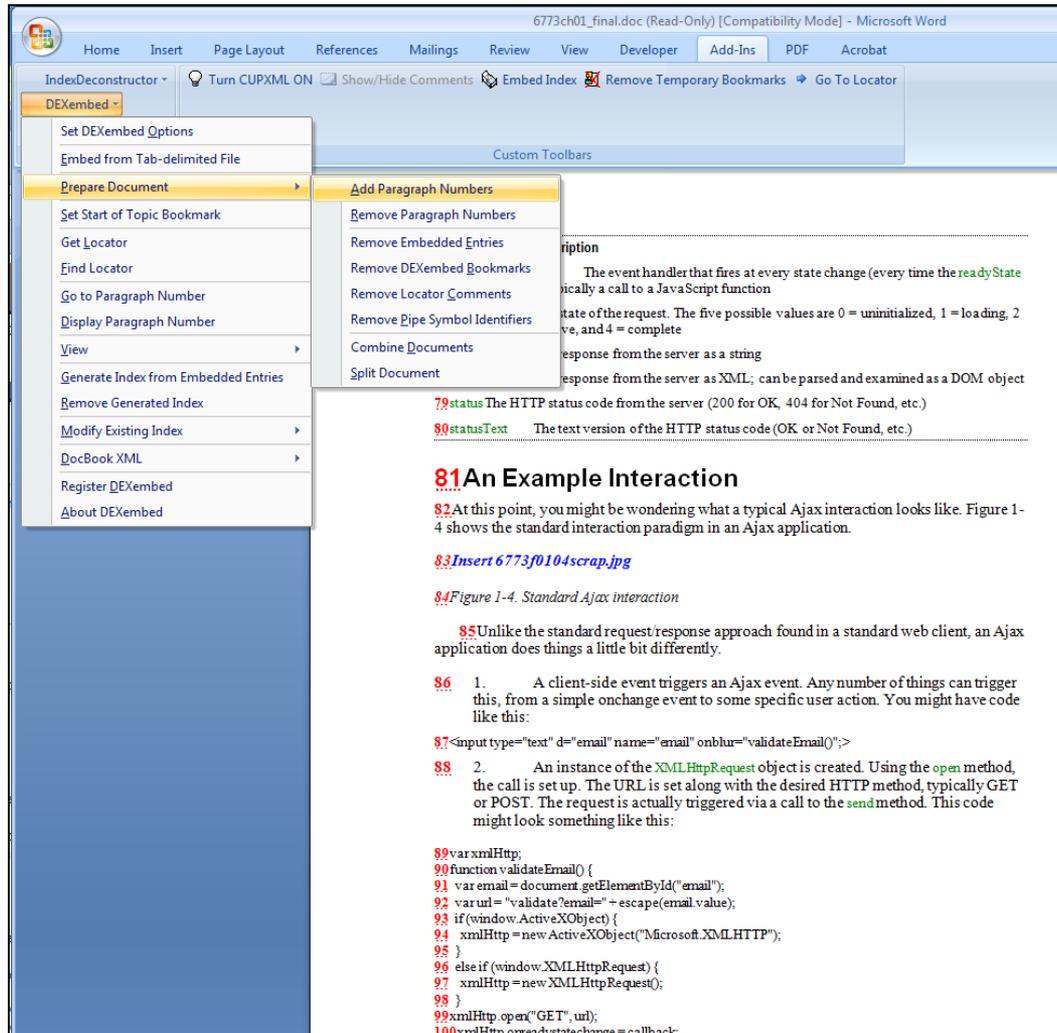
# DEXembed and WordEmbed embedding process

7

1. Index “as usual” in C/M/S software using:
  - Various locator options (DEXembed)
  - Bookmark locators (WordEmbed)
2. Save index file for import as:
  - DAT file (DEXembed)
  - RTF or MBK file (WordEmbed)
3. Import index file into Word documents
4. Remove temporary locators
5. Generate MS Word index

# 1. Index "as usual" in C/M/S programs -- using DEXembed locator options

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The screenshot shows Microsoft Word in Compatibility Mode. The ribbon includes Home, Insert, Page Layout, References, Mailings, Review, View, Developer, Add-Ins, PDF, and Acrobat. The DEXembed menu is open, showing options like 'Set DEXembed Options', 'Embed from Tab-delimited File', 'Prepare Document', 'Set Start of Topic Bookmark', 'Get Locator', 'Find Locator', 'Go to Paragraph Number', 'Display Paragraph Number', 'View', 'Generate Index from Embedded Entries', 'Remove Generated Index', 'Modify Existing Index', 'DocBook XML', 'Register DEXembed', and 'About DEXembed'. The 'Prepare Document' sub-menu is also open, showing 'Add Paragraph Numbers', 'Remove Paragraph Numbers', 'Remove Embedded Entries', 'Remove DEXembed Bookmarks', 'Remove Locator Comments', 'Remove Pipe Symbol Identifiers', 'Combine Documents', and 'Split Document'. The document content includes an example of an Ajax interaction with numbered sections 79 through 100, including HTML code for an input field and JavaScript for an XMLHttpRequest.

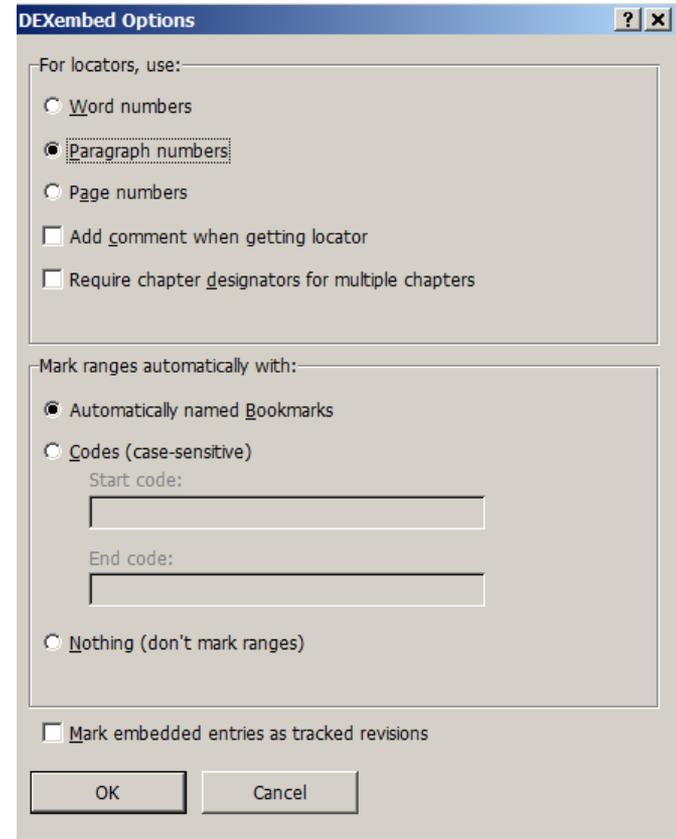
```
79 status The HTTP status code from the server (200 for OK, 404 for Not Found, etc.)
80 statusText The text version of the HTTP status code (OK or Not Found, etc.)

81 An Example Interaction
82 At this point, you might be wondering what a typical Ajax interaction looks like. Figure 1-4 shows the standard interaction paradigm in an Ajax application.

83 Insert 6773f0104scrap.jpg
84 Figure 1-4. Standard Ajax interaction

85 Unlike the standard request/response approach found in a standard web client, an Ajax application does things a little bit differently.

86 1. A client-side event triggers an Ajax event. Any number of things can trigger this, from a simple onchange event to some specific user action. You might have code like this:
87 <input type="text" id="email" name="email" onblur="validateEmail()">
88 2. An instance of the XMLHttpRequest object is created. Using the open method, the call is set up. The URL is set along with the desired HTTP method, typically GET or POST. The request is actually triggered via a call to the send method. This code might look something like this:
89 var xmlhttp;
90 function validateEmail() {
91   var email = document.getElementById("email");
92   var url = "validate?email=" + escape(email.value);
93   if (window.ActiveXObject) {
94     xmlhttp = new ActiveXObject("Microsoft.XMLHTTP");
95   }
96   else if (window.XMLHttpRequest) {
97     xmlhttp = new XMLHttpRequest();
98   }
99 xmlhttp.open("GET", url);
100 xmlhttp.onreadystatechange = callback;
```



The DEXembed Options dialog box is shown. It has a title bar with a question mark and a close button. The main area is divided into two sections. The first section, 'For locators, use:', has three radio buttons: 'Word numbers', 'Paragraph numbers' (which is selected), and 'Page numbers'. Below these are two checkboxes: 'Add comment when getting locator' and 'Require chapter designators for multiple chapters'. The second section, 'Mark ranges automatically with:', has three radio buttons: 'Automatically named Bookmarks' (selected), 'Codes (case-sensitive)', and 'Nothing (don't mark ranges)'. Below the 'Codes' option are two text input fields for 'Start code:' and 'End code:'. At the bottom, there is a checkbox for 'Mark embedded entries as tracked revisions' and two buttons: 'OK' and 'Cancel'.

# 1. Index "as usual" in C/M/S programs

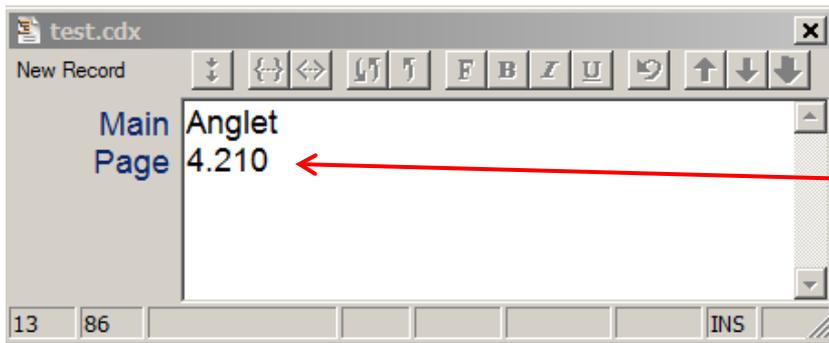
-- using WordEmbed locator option (Click-Copy-Paste)

9

1. **CLICK** in Word document to create temporary bookmark (Ctrl+Shift+\ or Alt+Ctrl+G)



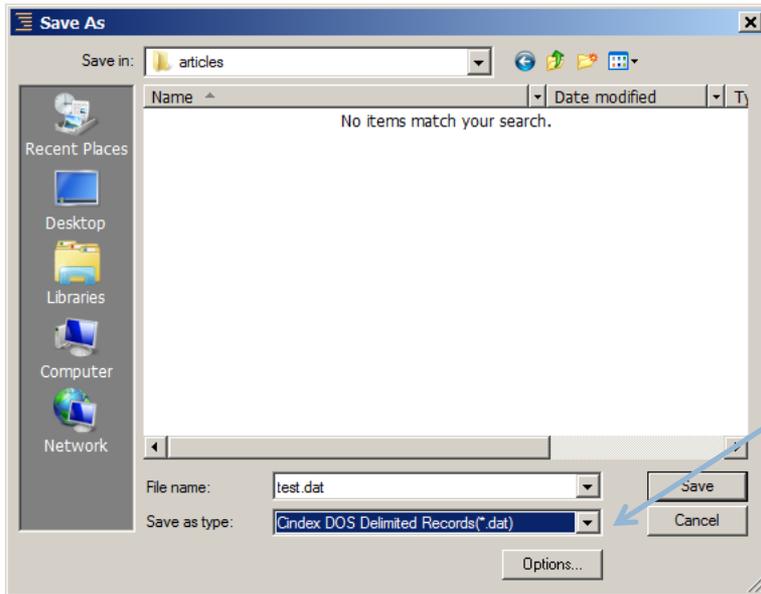
2. **COPY** of temporary bookmark is automatically sent to clipboard



3. **PASTE** bookmark value in C/M/S locator field (Ctrl+V)

## 2. Save index as DAT file for import (DEXembed)

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DAT file

```
acceptsURL.method.(DriverManager) → opening.database.connections → 166¶  
autocommit.mode → connections.and → 441¶  
BatchUpdateException.class → functionality → 393¶  
CallableStatement.interface → functionality → 103¶  
CallableStatement.objects → creating → 94¶  
CallableStatement.objects → creating → 190¶  
CallableStatement.objects → creating → 203¶  
CallableStatement.objects → creating → 209¶  
CallableStatement.objects → ResultSet.objects.and → 105¶  
case.sensitivity → Java.and → 19¶  
checked.exceptions → defined → 370¶  
classes → See.also.utility.classes¶  
classes → cores → 82¶  
classes → importing → 134¶  
classes → initializing → 143¶  
CLASSPATH.environment.variable → registering.drivers → 149¶
```



## 2. Save index as RTF or MBK file for import (WordEmbed)

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Putnam

Putnam's Italy, 2.160-2.30

Naples, 2.30

Scandinavians. See Norwegians

skills: uses of, 2.210



Putnam:Putnam's Italy, 2.160-2.30

Putname:Putnam's Italy:Naples, 2.30

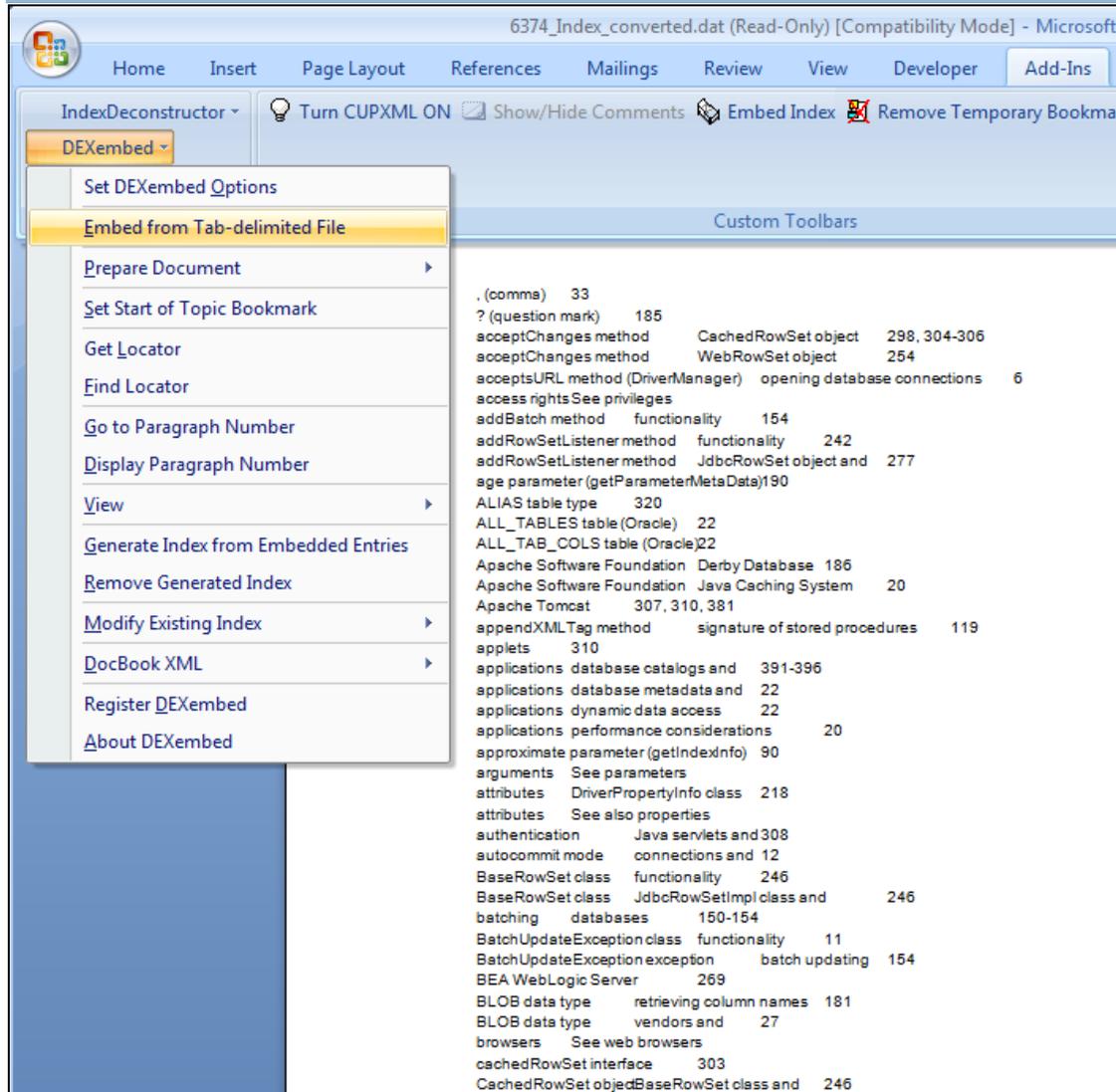
Scandinavians ^see^ Norwegians

skills: uses of, 2.210



### 3. Import index file into Word documents (DEXembed)

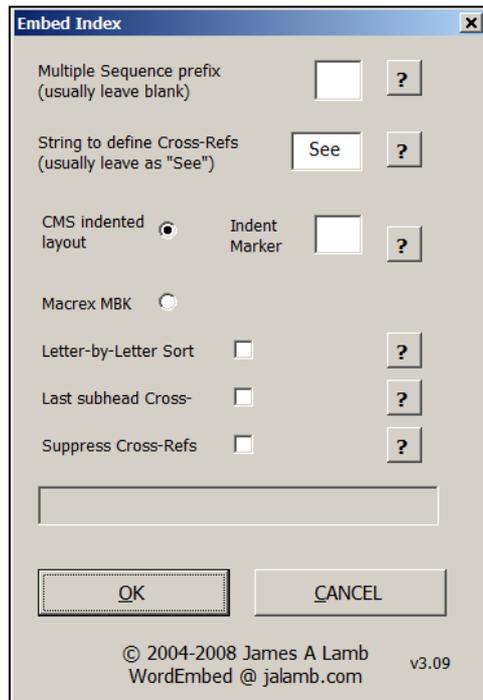
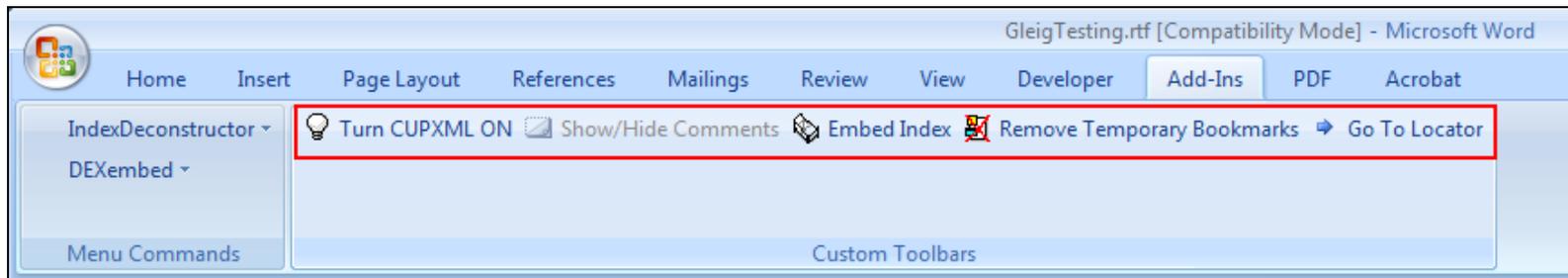
12



1. Open Word document.
2. Open DAT file.
3. Import process completes.

### 3. Import index file into Word documents (WordEmbed)

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1. Select the Embed Index button from the WordEmbed menu bar.
2. The Embed Index dialog box displays.
3. Select the format desired.
4. WordEmbed import process completes.
5. After the index has been embedded, press the Remove Temporary Bookmarks button (WordEmbed menu bar) to remove the temporary locators created earlier.

# Embedded index in Microsoft Word after import

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Servlets make use of the Java classes in these packages:

`{ XE "javax.servlet package" }` \* `javax.servlet`: The basic Servlet framework

`{ XE "javax.servlet.http package" }` \* `javax.servlet.http`: Extensions of the servlet framework for servlets that answer HTTP requests

`{ XE "HTTP (Hypertext Transfer Protocol):Java servlets" }` Typical uses for HTTP servlets include

`{ XE "HTML (Hypertext Markup Language):Java servlets and" }` `{ XE "dynamic content" }`  
\* Processing and/or storing data submitted by an HTML form

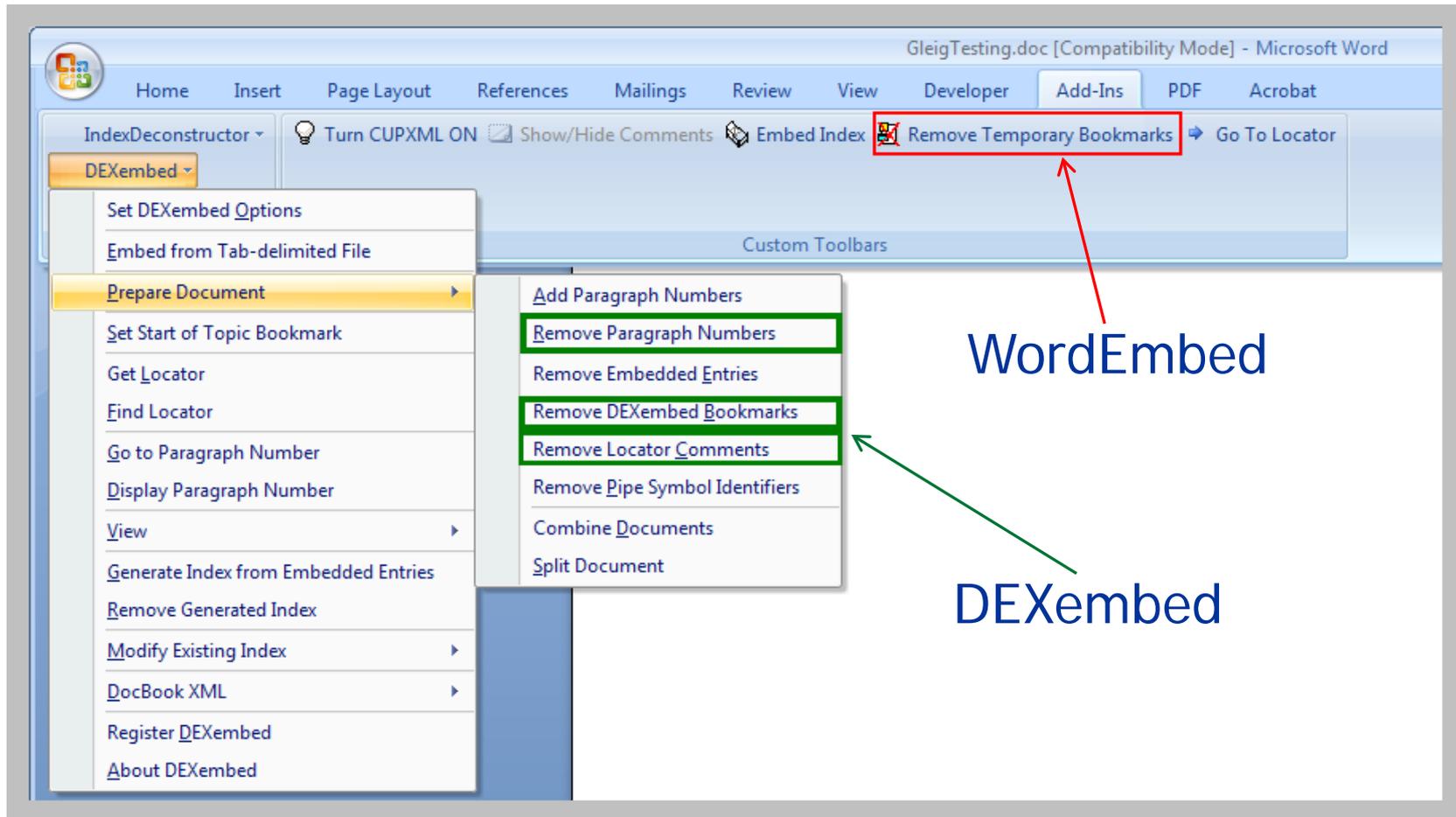
\* Providing dynamic content, for example, returning the results of a database query to the client (as HTML, XML)

`{ XE "HTTP (Hypertext Transfer Protocol):Java servlets" }` \* Managing state information on top of the stateless HTTP, for example, for an online shopping cart system that manages shopping carts for many concurrent customers and maps every request to the right customer

`{ XE "Java servlets:overview" }` `{ XE "Java servlet engine:defined" }` `{ XE "Apache Tomcat" }` A *Java servlet engine* is the Java application that executes the Java servlet. It is a mechanism by which a Java application can be written to provide dynamic web content. For example, Tomcat (<http://jakarta.apache.org/tomcat/>) has a servlet engine that you can use to execute Java servlets.

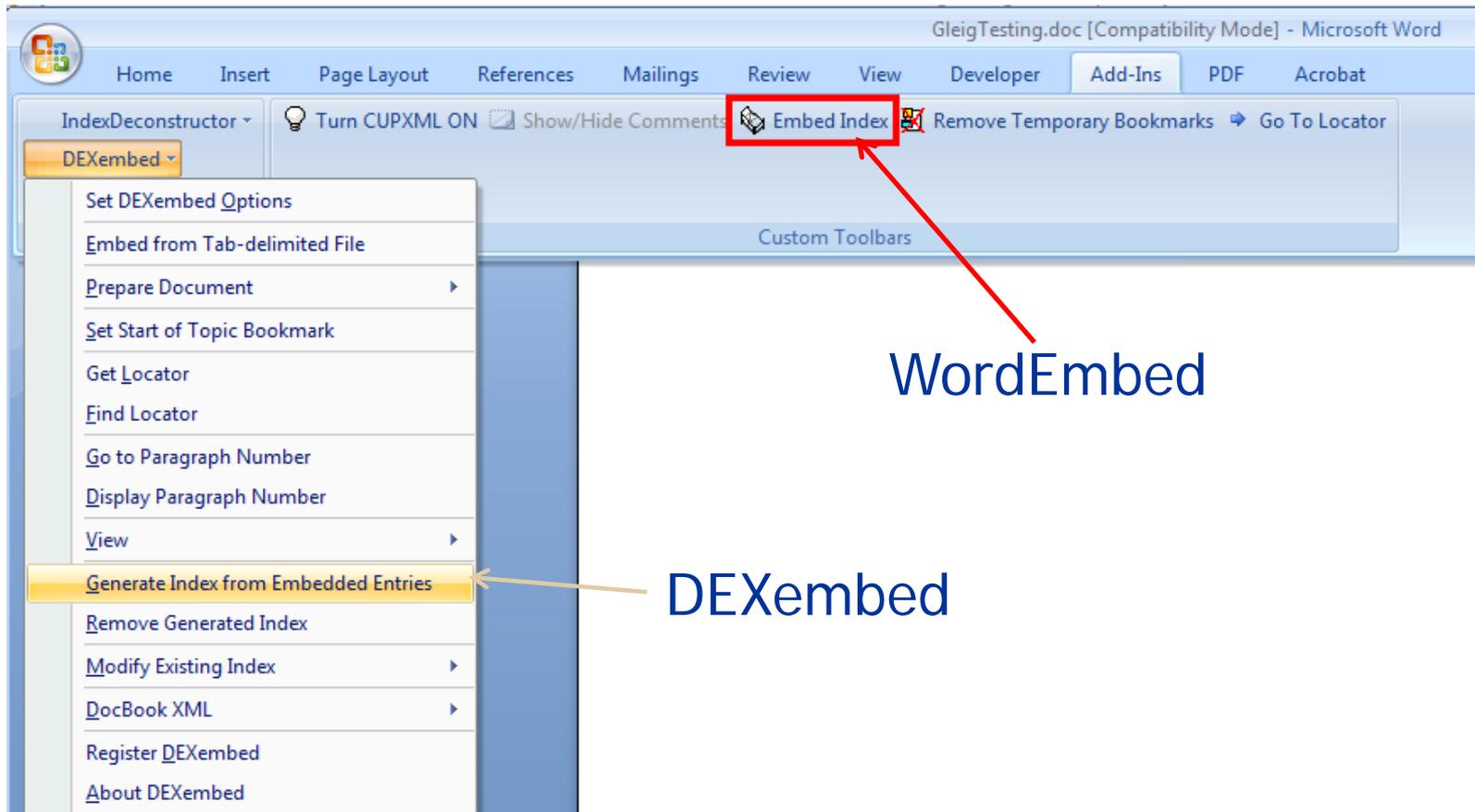
# 4. Remove temporary locators

15



# 5. Generate MS Word index

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# Learning Curves

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- ❑ Familiarization with DEXembed and WordEmbed
- ❑ Establishing new and viable work processes
- ❑ Training my eye to ignore visual clutter
- ❑ Indexing and submitting one chapter at a time
- ❑ Final edit process

# Learning curve:

Familiarization with DEXembed and WordEmbed

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- Learn the utilities by going through the tutorials
- Read the really, really, really, really!!! helpful manuals
- Remember it takes time to start from ground zero
- Find your indexing rhythm and natural process flow



# Learning curve:

Establishing new and viable work processes

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- Client version control system
- Project prep work
  - ▣ client preferences (page ranges; insertion points)
  - ▣ naming Word documents
  - ▣ pagination for multiple chapters
- Determining how edits will be applied after final review





# Learning curve:

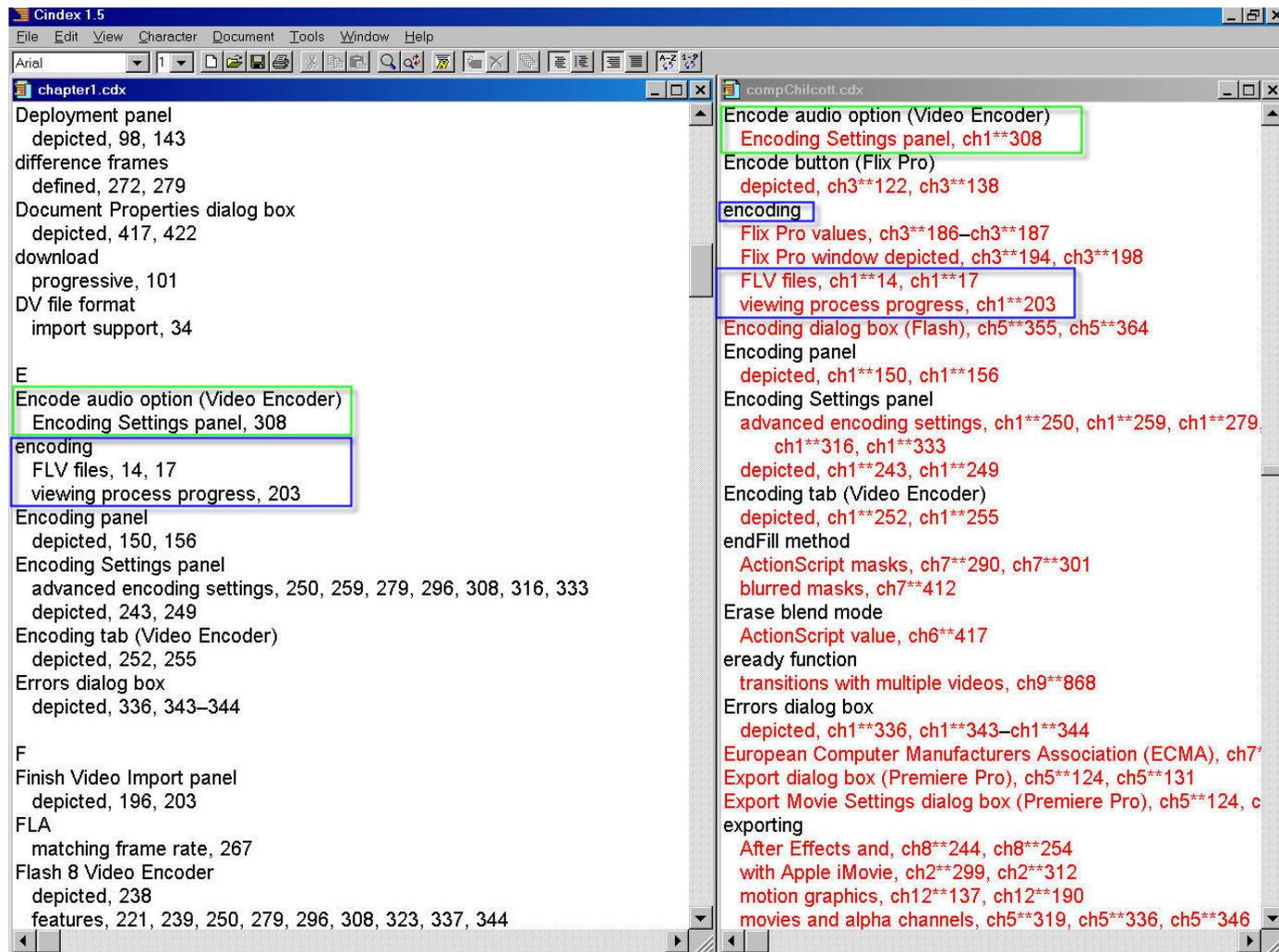
Indexing and submitting one chapter at a time

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- ❑ Index chapter in C/M/S indexing software
- ❑ Embed chapter's index entries into MS Word
- ❑ Submit chapter containing embedded index entries to client
- ❑ Establish mechanism that tracks submitted chapters and edits that still need to be applied globally
- ❑ At book completion, edit final index in proprietary software and submit as RTF file

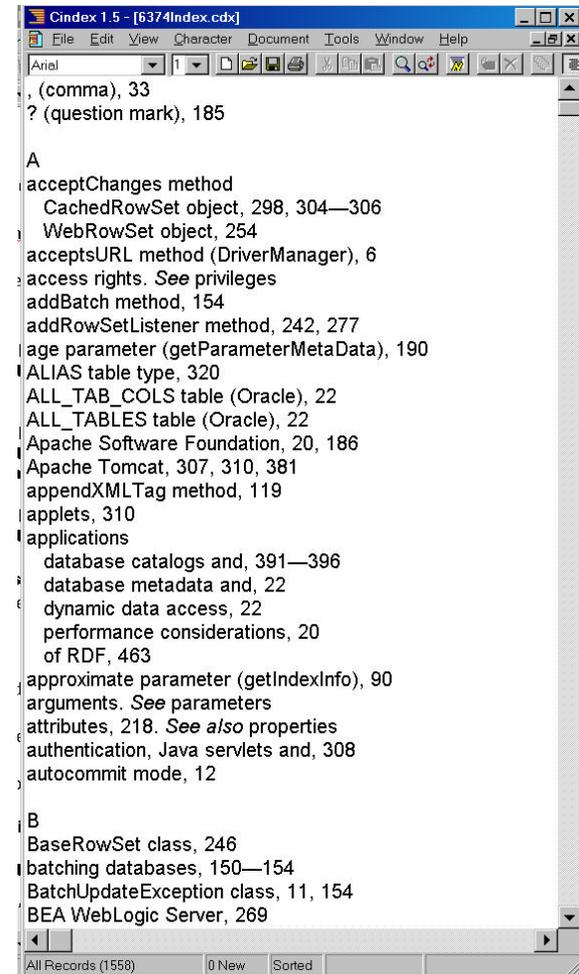
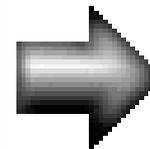
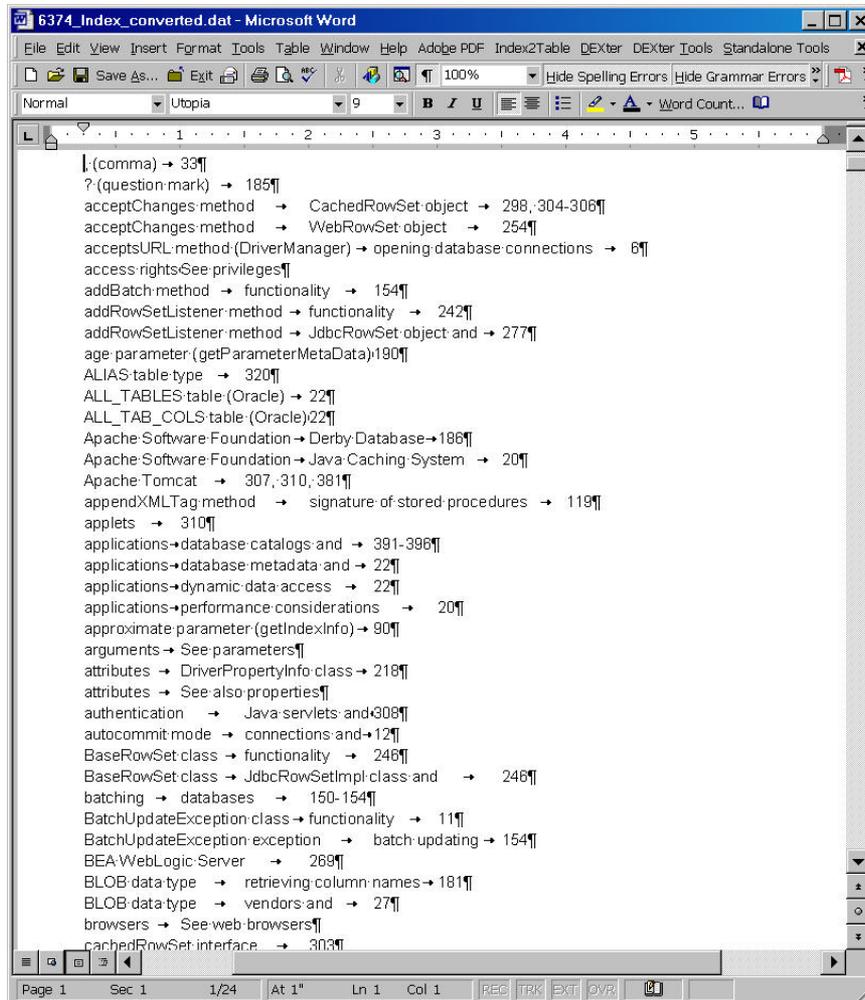
# Learning curve: Indexing and submitting one chapter at a time

22



# Learning curve: Final edit process

23



# Final suggestions

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- ❑ Read instruction manuals and follow tutorials!
- ❑ Start with a small project!
- ❑ Give yourself plenty of time!
- ❑ Verify client preferences
  - ❑ access and delivery methods
    - hot potato
    - naming conventions for files
  - ❑ marker placement (special areas/inside content)
  - ❑ page ranges
  - ❑ final review and edits

# Questions about DEXembed or WordEmbed?

# IndexDeconstructor

26

- How does it work?
- Why would I want to use it?



# How does IndexDeconstructor work?

27

- Third-party (.dot file) add-on to MS Word
  - Jack Lyon ([www.editorium.com/dexembed.html](http://www.editorium.com/dexembed.html))
  - \$29.95 for single user
  - MAC and Windows
  - 45-day trial period
  
- Converts indexes in RTF/PDF format into DAT files importable into C/M/S



# Why would I want to use it?

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- Useful in repagination projects where prior version's index is available as a starting point.
- Imported into C/M/S, the "deconstructed" index can provide significant time savings over re-indexing from scratch.
- No significant technical knowledge required



# Constraints importing indexes from DOC/RTF files



# Example of typical index saved as DOC/RTF file

30

## Addition

- of complex numbers, 176
- of functions, 149
- of matrices, 502
- of polynomials, 640
- of radicals, 669
- of rational expressions, 654

## Division

- of complex numbers, 179
- of functions, 149
- of polynomials, 232
- of rational expressions, 653
- synthetic, 235

# Imported *as-is* in CINDEX using DAT (or TXT) file

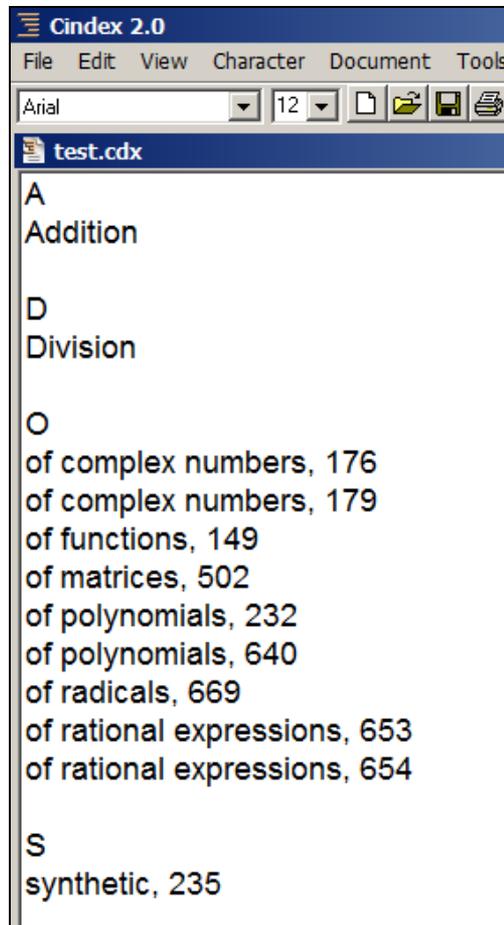
31

## Addition

- of complex numbers, 176
- of functions, 149
- of matrices, 502
- of polynomials, 640
- of radicals, 669
- of rational expressions, 654

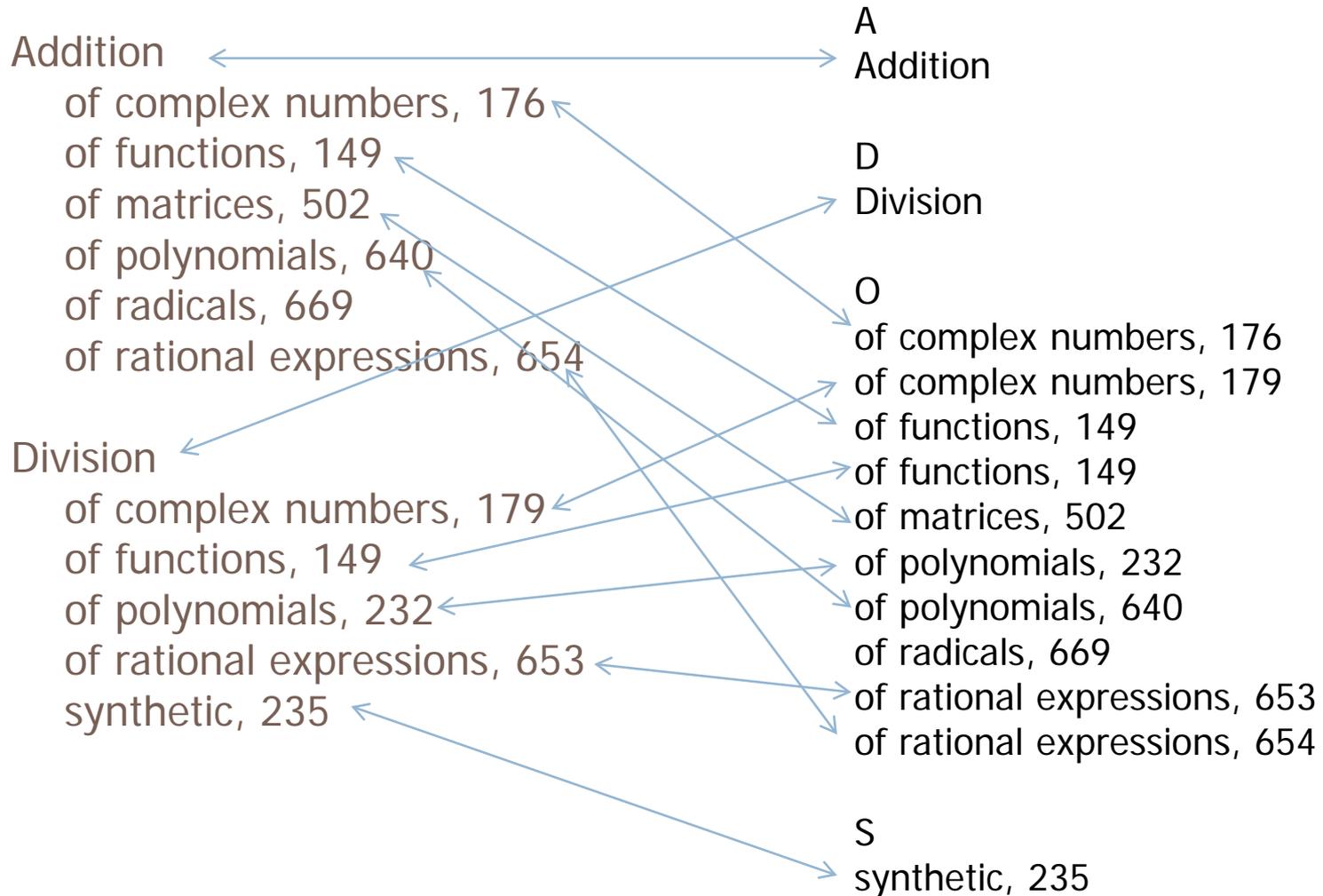
## Division

- of complex numbers, 179
- of functions, 149
- of polynomials, 232
- of rational expressions, 653
- synthetic, 235



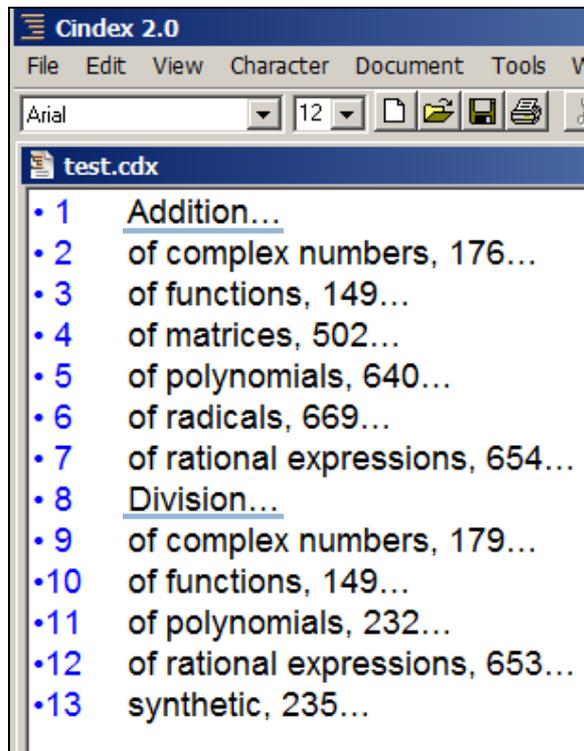


# Compare the two structures



# Partially correct import in CINDEX

33





# Alternative solutions:

## Index conversion (deconstruction) services

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- Indexing Research – Frances Lennie  
(<http://www.indexres.com/home.php>)
- Leverage Technologies – David Ream  
(<http://www.levtechinc.com>)



# Process for deconstructing an index

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1. Preparing PDF files (if necessary)
2. Preparing MS Word files
3. Running IndexDeconstructor
4. Importing deconstructed file into C/M/S
5. Validating imported records
6. Saving validated records



# Step 1. Preparing PDF files (if necessary)

36

- ❑ Saving PDF file into TXT format
  - ❑ extraneous lines (header/footer information)
  - ❑ formatting stripped out
  - ❑ diacritics and special characters don't convert
- ❑ Saving PDF file into RTF/DOC format
  - ❑ retains PDF column structure
  - ❑ line breaks often lost
  - ❑ subentries run-in with no delimiters
  - ❑ records sometimes clumped as groups
- ❑ Copying from PDF file to RTF file one column at a time
  - ❑ Copying and pasting selected text
  - ❑ Tedious but goes quickly (5 minutes for 2,000 lines)

# Step 2. Preparing MS Word files

37

1. Tidy up index
  - ❑ remove alpha headers
  - ❑ remove blank/extraneous lines
  - ❑ pull up runover lines
3. Apply styles or tab delimiters as appropriate
  - ❑ Apply styles to each line item (Index 1, Index 2, etc.)
  - ❑ Apply tab delimiters to subentries line by line
4. Save Word document (special prefix appended to name)

2. Correct formatting for cross-reference lines.

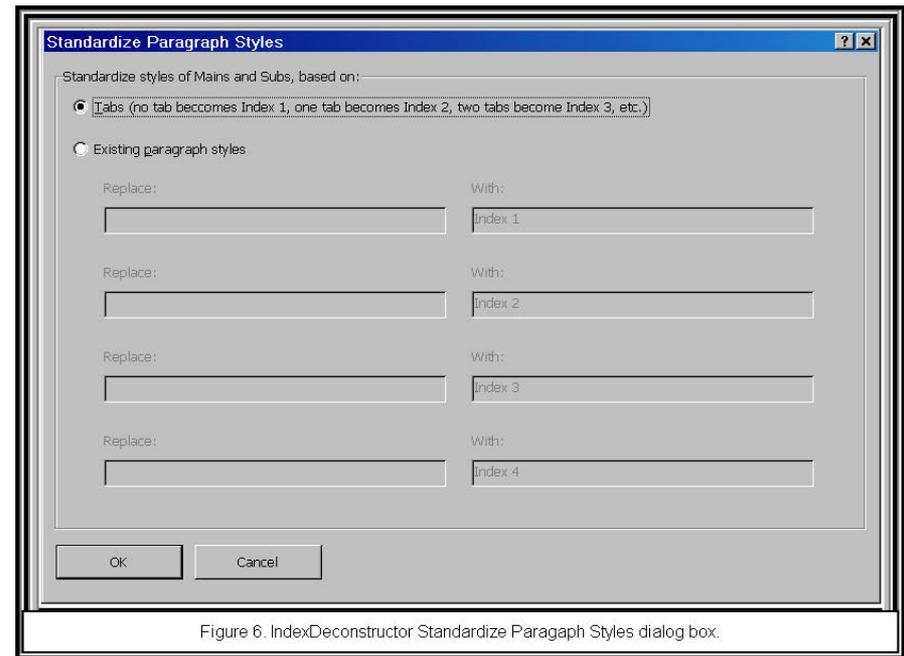
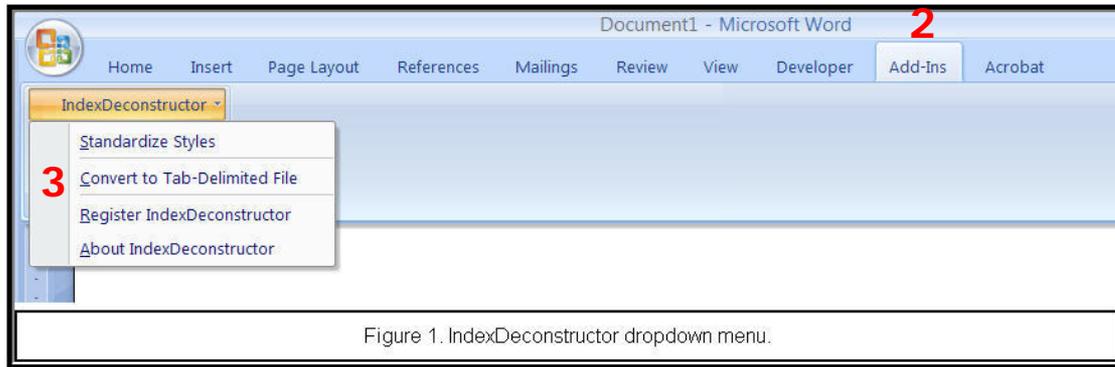


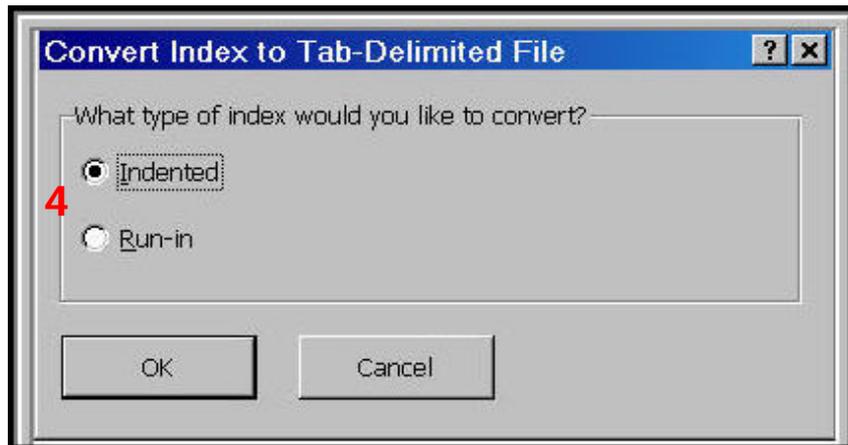
Figure 6. IndexDeconstructor Standardize Paragraph Styles dialog box.

# Step 3. Running IndexDeconstructor

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1. Open Word document previously prepared.
2. Access IndexDeconstructor from Add-Ins menu.
3. Select Convert to Tab-Delimited File from dropdown menu.
4. Selected indented or run-in option.
5. IndexDeconstructor starts processing.
6. IndexDeconstructor closes RTF file and opens newly created DAT file (input for import process.)





## Step 4. Importing deconstructed file into C/M/S

39

- ❑ Create new index file in C/M/S.
- ❑ Follow C/M/S software instructions on how to import DAT files.
- ❑ Records are imported and index file is now populated with imported records.

# Step 5a. Validating imported records

Review imported records in C/M/S file for...

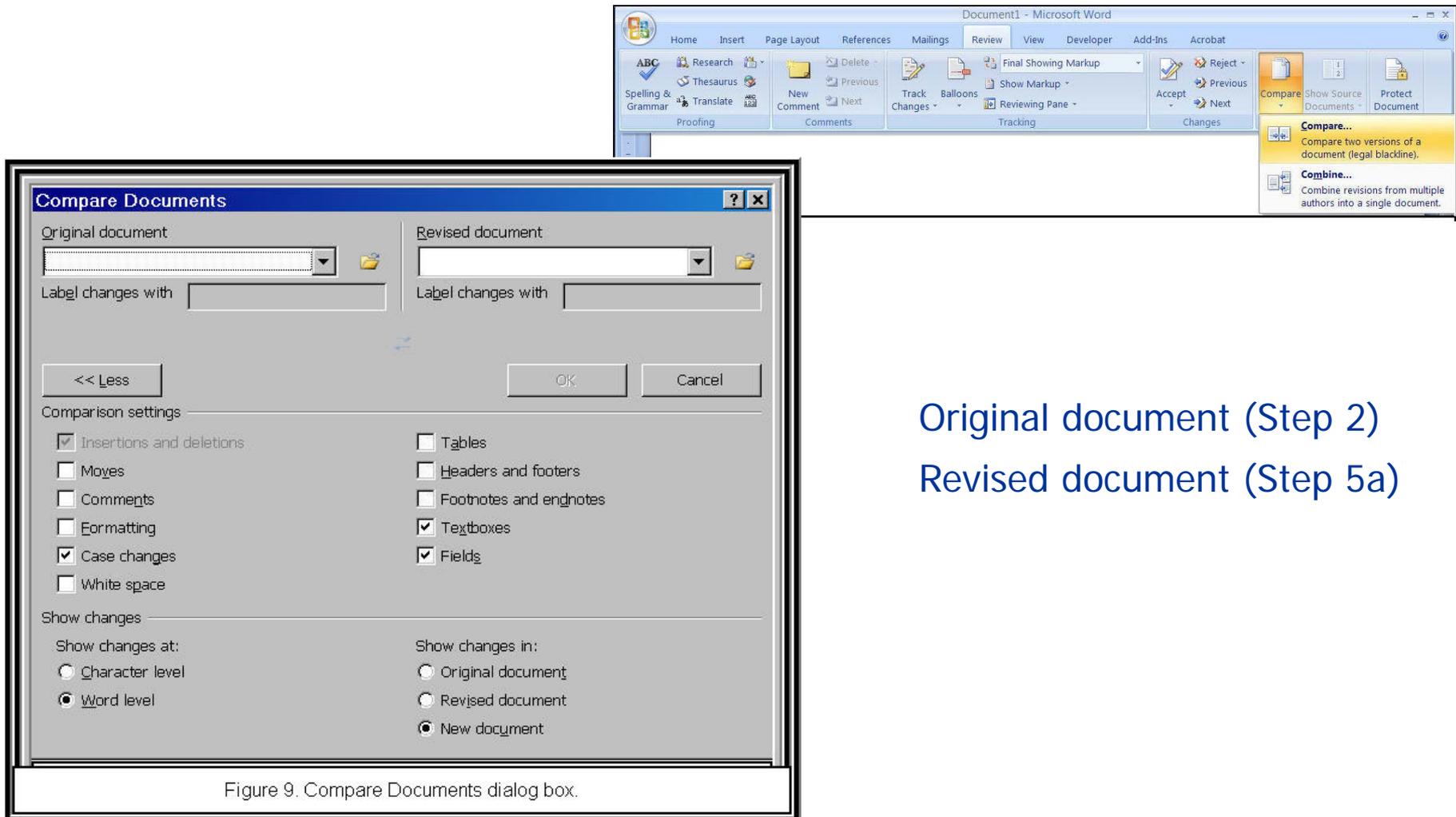
40

- Review imported records in C/M/S file for...
    - Blank page number fields
    - Blanks in main entry
    - Garbage records with nonsensical information
    - Orphan subentries in main entry
    - Page numbers in wrong location
    - Cross references
    - Diacritics and symbols
    - Formatting (bold, italics)
    - "continued" text
    - Truncated page numbers
  - Sort in page number order
  - Sort alphabetically
  - Quick visual scan
  - Pattern-matching searches
  - Find feature
- 
- The diagram consists of blue arrows pointing from specific items in the list to their corresponding search or sorting methods. The connections are as follows:
- Blank page number fields → Sort in page number order
  - Blanks in main entry → Sort alphabetically
  - Garbage records with nonsensical information → Quick visual scan
  - Orphan subentries in main entry → Quick visual scan
  - Page numbers in wrong location → Quick visual scan
  - Cross references → Pattern-matching searches
  - Diacritics and symbols → Find feature
  - Formatting (bold, italics) → Find feature
  - "continued" text → Find feature
  - Truncated page numbers → Find feature

# Step 5b. Validating imported records

## Invoke Compare Documents command in Word

41



Original document (Step 2)  
Revised document (Step 5a)

Figure 9. Compare Documents dialog box.

# Step 5c. Validating imported records

Review comparison document and modify C/M/S records as appropriate

42

## Most likely differences between two documents:

- Sort order different
  - change sort order

Radius units, 22
Range <ul style="list-style-type: none"><li>of function, 19–21, 765, 766</li><li>in projectile motion, 737, 738</li></ul>
<u>Rate(s)</u> <ul style="list-style-type: none"><li><u>average</u>, 60</li><li><u>of change</u>, 58–63</li><li><u>instantaneous derivative as</u>, 62–63</li><li><u>integral of</u>, 330–331</li></ul>
Rate constant, exponential change, 428
<del>Rate(s)</del> <ul style="list-style-type: none"><li><del>average</del>, 60</li><li><del>of change</del>, 58–63</li><li><del>instantaneous derivative as</del>, 62–63</li><li><del>integral of</del>, 330–331</li></ul>
Ratio, in geometric series, 564
Ratio Test, 581–583, 594–595, 597, 615
Rational exponents, 36
Rational functions

- Missing index entries
  - add manually

decreasing, 91
increasing, 91
<del>Contradiction</del> , 56
<del>Convergent sequence</del> , 822
<del>Converse of the Pythagorean theorem</del> , 6
<del>Coordinate plane</del> , 3
Coordinate system <ul style="list-style-type: none"><li>Cartesian, 3</li><li>polar, 629, 793</li><li>rectangular, 2</li></ul>
Coordinate(s) of a point, 3
Corner point of a region, 541
Correlation coefficient, 43
Cosecant function, 582, 646–647

- Apostrophes – ignore

~~Cauchy's~~ Cauchy's Mean Value Theorem, 259–260

~~Cavalieri~~, Bonaventura, 365

~~Cavalieri's~~ Cavalieri's principle, 365

# Step 5c. Validating imported records

Review comparison document and modify C/M/S records as appropriate

43

## Most likely differences between two documents:

- Incorrect import – correct manually
  - subentries in wrong location
  - page numbers in wrong location
  - extraneous characters
- Special characters
  - correct manually

Feasible solutions, region of, 541  
Fibonacci, 823  
  [finite](#), 822  
  [general term of](#), 821  
  [geometric](#), 839  
  [infinite](#), 822  
  [nth term of](#), 821  
  [recursively defined](#), 822  
  [terms of](#), 821  
Fibonacci sequence, 823  
Finite sequence, 822  
Finite series, 825  
First-degree equation, 467  
First octant, 936  
Fixed cost, 69, 154

Sequence(s), 821, 831  
  arithmetic, 831  
  convergent, 822  
  divergent, 822  
  explicitly defined, 822  
Fibonacci, 823  
  [finite](#), 822  
  [general term of](#), 824  
  [geometric](#), 839  
  [infinite](#), 822  
  [nth term of](#), 824  
  [recursively defined](#), 822  
  [terms of](#), 824

~~L'Hôpital~~ [L'Hôpital](#), Guillaume de, 254  
~~L'Hôpital's~~ [L'Hôpital's Rule](#)  
-----  
~~Limaçons~~ [Limaçons](#), 799  
-----  
Poisson, ~~Siméon~~ [Siméon](#)-Denis, 820



## Step 6. Saving validated records

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- This is the recovery file.
- Save with unique suffix.
- Save in safe place in case you need it!

# Questions about IndexDeconstructor?



**"Mr. Osborne, may I be excused? My brain is full!"**