Embedded Indexing

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If you don't index it, it doesn't exist.

It's out there but you can't find it, so it might as well not be there.

(Barbara Quint, ASI San Diego Conference, 1994)
Embedded indexing

- FrameMaker
- Microsoft Word
FrameMaker

- Difficulties using FrameMaker alone
- Benefits and functionality of third-party utilities
- My embedding process
Difficulties using FrameMaker alone - data entry

FM Process:
- open book
- open chapters
- index

Creating terms:
- index preview
- autocomplete
- marker box size
- special strings
- autogeneration
Difficulties using FrameMaker alone - editing

FM Process:
• generate index
• hyperlinks

Editing terms:
• change propagation
• index preview
• viewing entries
Third party utilities for FrameMaker

emDEX
http://www.emdex.ca

IXgen
http://www.fsatools.com
Benefits/functionality of third party utilities
- index preview (emDDEX)
Benefits/functionality of third party utilities

- autocomplete for entries (emDEX)

Why do you need to back up the JUNOS filesystem? One seasoned administrator has said that the less you know about the JUNOS filesystems, the more sane you will be—but still, you have to know at least a little bit. Routers have two internal storage areas, the flash drive (by default, the primary boot device) and the hard disk (the secondary boot device). A copy of the JUNOS software is stored in both. The flash drive has two filesystems (or partitions): `config`, which contains the active and most recent backup configurations, the rescue configuration, and software licenses; and `flash`, which contains the JUNOS software (everything installed by the `install` or `bundle` command), the router’s `config` keys, and a few other files generated from the configuration. The hard disk has one filesystem, `root`, which is a large partition that contains system logfiles, diagnostic dump files, archived configuration files, and user home directories. (Also on the hard disk are the `tailroot` and `tailconfig` partitions, which contain a copy of the JUNOS software and related files, and a swap partition.) When booting from the flash drive, the router uses the `software` and `files` on the flash drive. If the boot fails, it automatically tries the software and files on the hard disk. For the boot failure process to work, you must have created a snapshot from a working version of the software at some time in the past.

There is one additional filesystem on the router, `tmpfs`, which is a RAM disk (a memory filesystem).

To verify that the snapshot was successful, you might want to list the contents of the filesystems with the `ls -l` command. However, the `tailroot` and `tailconfig` filesystems are not mounted, so they are not visible even though the underlying directories are still present.

```
$ cd /tmp/
$ ls -l
```

How do you know from the output of the command which entries is `root`? (Carried over from the previous page)

```
-rw-r--r-- 1 root root 12288 Nov 12 12:00 JUNOS-9.14.8-1697
-rw-r--r-- 1 root root 12288 Nov 12 12:00 JUNOS-9.14.8-1697
```

```
-rw-r--r-- 1 root root 12288 Nov 12 12:00 JUNOS-9.14.8-1697
```
Benefits/functionality of third party utilities
- customizable marker box and special strings (emDEX)
Benefits/functionality of third party utilities
- autogeneration of entries (IXgen)

- from Keywords
- from Paragraph Tags
- from Character Tags

permute (rotate) marker text
- quick brown fox can be rotated to these two additional entries:
  - brown, fox quick
  - fox, quick brown
Benefits/functionality of third party utilities
- change propagation (emDEX)

OLD VERSION:
InfoPath defined 215
Excel and 225-227
generating HTML output 261-263
linking forms 230-236, 245-247
populating controls 236-239
scripts and 243-245, 247-255
sharing data 227-230

NEW VERSION:
InfoPath (Microsoft) defined 215
Excel and 225-227
generating HTML output 261-263
linking forms 230-236, 245-247
populating controls 236-239
scripts and 243-245, 247-255
sharing data 227-230
Benefits of third party utilities for FrameMaker
- change propagation (IXgen)
### Benefits/functionality of third party utilities

- **viewing index entries in document (IXgen)**

<table>
<thead>
<tr>
<th>Filesystem</th>
<th>Size</th>
<th>Used</th>
<th>Avail</th>
<th>Mounted on</th>
</tr>
</thead>
<tbody>
<tr>
<td>/dev/vol1a</td>
<td>77M</td>
<td>36M</td>
<td>33M</td>
<td>/tmp</td>
</tr>
<tr>
<td>/dev/vol1b</td>
<td>17M</td>
<td>13M</td>
<td>4M</td>
<td>/data</td>
</tr>
<tr>
<td>/dev/vol1c</td>
<td>22M</td>
<td>20M</td>
<td>2M</td>
<td>/home</td>
</tr>
<tr>
<td>/dev/vol1d</td>
<td>38M</td>
<td>36M</td>
<td>2M</td>
<td>/tmp</td>
</tr>
</tbody>
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There is one additional `snap` directories (see specific filesystems on the router, `tmp directory/tmp directory`), which is a RAM disk (a memory filesystem).

To verify that the snapshot was successful, you might want to list the contents of the filesystems (with the `file list command`). However, the `boot` and `alconff` filesystems are not mounted, so they are not visible even though the underlying directories are still present.
My embedding process using FrameMaker and utilities

- two-screen layout
- use index as static (previous chapters) guide
- emDEX window as dynamic (current chapter) guide
- edit by hyperlinking from generated index
Pages per hour
Editing as percentage of time
Questions on emDEX or IXgen?
Microsoft Word

- Difficulties embedding with Word alone
- Benefits of third-party utilities

- Processes for third-party utilities
  - DEXter process
  - WordEmbed process

- Client processes for embedded indexes
  - Apress process
  - Microsoft process
Difficulties embedding with Microsoft Word alone

- Creating-entering index terms
- Previewing the index
- Editing index terms
Third party utilities for Microsoft Word

**DEXter**
http://www.editorium.com/DEXter.htm

**WordEmbed**
http://www.wordembed.jalamb.com
Embedding process in Microsoft Word with utilities

No need to index in Microsoft Word!

- index in proprietary software using:
  - line/paragraph/page locators (DEXter)
  - bookmarks as locators (WordEmbed)

- save index file as:
  - DAT file (DEXter)
  - RTF or MBK file (WordEmbed)

- import index file into Microsoft Word
Using locators in indexing program

- DEXter

- WordEmbed

With the inclusion of more precise guidelines, satisfactory solutions to the majority of problems can be found, always with the overall objective in mind. These elements are the key to success.
Saving index for import into Microsoft Word
- DEXter DAT file

| acceptsURL::method (DriverManager) → opening · database · connections → 166% |
| autonomy · 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% |
Saving index for import into Microsoft Word
- WordEmbed formats

Putnam

Putnams’s Italy, 2.160-2.30
Naples, 2.30
Scandanavians. See Norwegians
skills: uses of, 2.210

CMS (RTF file)

Putnam:Putnams’s Italy, 2.160-2.30
Putname:Putnam’s Italy:Naples, 2.30
Scandanavians ^see^ Norwegians
skills: uses of, 2.210

MBK (Macrex) style format
Importing index into Microsoft Word

- DEXter

1. Open Word document.
2. Open DAT file.
3. Select Mark Entries from Standalone Table.
4. Select Lines, Paragraphs, Pages from Mark Entries dialog box.
5. Import process completes.
Importing index into Microsoft Word
- WordEmbed

1. Select the Embed Index button from the WordEmbed menu bar.
2. The Embed Index dialog box displays.
3. Select the format desired.
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

Servlets make use of the Java classes in these packages:

- `javax.servlet`: The basic Servlet framework
- `javax.servlet.http`: Extensions of the servlet framework for servlets that answer HTTP requests

Typical uses for HTTP servlets include:

- 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)
- 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

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.
Questions on DEXter or WordEmbed?
Client processes for embedding in Microsoft Word

- Apress
- Microsoft
Apress process

- Index one chapter at a time in proprietary indexing software
- Embed index entries one chapter at a time into Microsoft Word (using DEXter)
- Submit chapter containing embedded index entries to Apress
- At completion of book, edit final index and submit as RTF file
Initial learning curve with Apress process

- learning WordEmbed
- learning DEXter
- learning Word templates
Establishing a viable process for Apress projects
– training my eye to ignore clutter

Clutter:
• line numbering
• document map
• instructions to compositor
Establishing a viable process for Apress projects
– indexing one chapter at a time
Establishing a viable process for Apress projects
- final edit
Questions on Apress process?
Microsoft process

- Index in proprietary software package using special locator strings embedded in Microsoft Word document
- Submit DAT file to Microsoft
- Microsoft completes process of embedding using the special locator strings
Establishing a viable process for Microsoft projects
- training my eye to ignore clutter
Initial learning curve with Microsoft process
- making sense of special locator strings

\{XE "2543A.501.00.00.002.1"\} — long UID

| 501. | 002.1 | — short UID
Establishing a viable process for Microsoft projects

- identifying indexable pages

<table>
<thead>
<tr>
<th>Book Name</th>
<th>2274B: Managing in Microsoft Windows Server 2003 Environment</th>
<th>Date Rcvd</th>
<th>11/23/2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Microsoft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact</td>
<td></td>
<td>DATE DUE</td>
<td>12/10/2004</td>
</tr>
<tr>
<td>Phone</td>
<td></td>
<td>Rate:</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td>2900 to 3600 lines</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>From</th>
<th>To</th>
<th>Pages</th>
<th>Minus</th>
<th>Nonindexable Pages</th>
<th>Indexable Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>39</td>
<td>37</td>
<td>5</td>
<td>11,18,25,35-36</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>77</td>
<td>76</td>
<td>25</td>
<td>13-15,24-25,32-34,40-41,48-49,55,57,64-65,69-77</td>
<td>51</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>63</td>
<td>62</td>
<td>19</td>
<td>17-18,21,24-25,27,33-36,41-42,45-46,58-59,61-63</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>64</td>
<td>63</td>
<td>20</td>
<td>3,6,20-21,35-37,41-42,44-45,49-50,58-64</td>
<td>43</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>51</td>
<td>50</td>
<td>17</td>
<td>3,15-16,22-23,30,44-54</td>
<td>33</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>29</td>
<td>28</td>
<td>12</td>
<td>8-9,13-14,20,22-24-29</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>29</td>
<td>27</td>
<td>9</td>
<td>15-17,24-29</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>38</td>
<td>36</td>
<td>14</td>
<td>8-9,15,20,28,30-38</td>
<td>22</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>56</td>
<td>55</td>
<td>23</td>
<td>8-10,15-17,27-29,35-37,40,44-45,48-56</td>
<td>32</td>
</tr>
</tbody>
</table>

Total pgs 498 162 336 336
Rate:

Total Fees
Questions on Microsoft process?