docoll server sysadmin guide
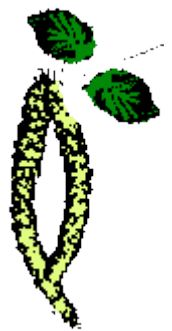
Table of Contents

1   Introduction

This is the server system administrator's guide for the docoll system, version 0.7.6.

There is an overview of the docoll system in related document "docoll system introduction". It may help to read that before reading this document.

1.1   Related docoll documentation

In descending order of likely usefulness to a new reader:

- "docoll system introduction"
- "docoll directories and files"
- "docoll rsync sysadmin guide"
- "docoll upgrade guide"
- RELEASE – release notes

2   System requirements

2.1   Storage space

The docoll components and are small and the Xapian database is relatively small (~ 3% of the size of the collated documents) so the storage requirements are defined by the files the rsync clients synchronise and, of those, how many are unique files of types configured to be taken into the collation.

2.2   CPU

rsync can be CPU intensive. The actual requirement depends on the number of rsync clients, the number and size of new files per synchronisation and the number of rsync clients synchronising simultaneously.

Initialising and indexing a new collation creates a heavy sustained load but the effect on the server is reduced by use of `nice` and `ionice`.

3   Pre-requisite software

3.1   GNU/Linux

docoll 0.7.6 is known to work with Debian Squeeze. Early versions known to work with Slackware 13.1 and CentOS 5.5

3.2   bash

docoll is known to work with bash 4.1.5.

3.3   MTA

Optionally required if docoll logs are to be mailed, an MTA such as exim, postfix or sendmail.

docoll 0.7.6 is known to work with postscript 2.7.1.

3.4   Postgres

docoll 0.7.6 is known to work with postgres 8.4.8.

As the Postgres user (normally postgres), create the docoll user and make a note of the password set:

```
createuser --pwprompt docoll
Enter password for new role:
Enter it again:
Shall the new role be a superuser? (y/n) n
Shall the new role be allowed to create databases? (y/n) y
Shall the new role be allowed to create more new roles? (y/n) n
```

3.5   rsync

Optionally required if synchronising files from client computers.

docoll 0.7.6 is known to work with rsync 3.0.7.

3.6   Ruby

docoll 0.7.6 is known to work with Ruby 1.9.2p180.

3.7   Apache

docoll 0.7.6 is known to work with Apache 2.2.16.

The only Apache module used by docoll that is not usually enabled by default is "rewrite". Ensure it is available by running, as root:

```
a2enmod rewrite
```

If the rewrite module was not already enabled, the command will advise you to restart Apache. This need not be done because the docoll installation procedure includes making Apache re-load its configuration.

3.8   Xapian Core and Xapian Omega

docoll 0.7.6 is known to work with Xapian Core and Xapian Omega 1.2.8.

In case no packages of the desired versions are available, commands to build and install from source are given in Appendix 2 – Installing Xapian 1.2.8 from source.

3.8.1   Filters for Xapian Omega's omindex

Filters are used by Omindex to convert files to plain text for indexing. There are three types of filter:

1. **Built-in** filters are built into the omindex program itself.

2. **Automatic** filters are separate programs that are used by the omindex program if they are available on the system.

3. **Alternative** filters are commands given to the omindex program using its `--filter` option.

3.8.1.1   Automatic filters

The filters you need to install, if any, depend on the file name extensions configured for inclusion in the collation. When you have decided what to include (default: .doc, .docx, .odp, .ods, .odt, .pdf, .pps, .ppsx, .ppt, .pptx, .rtf, .txt, .xls, .xlsx), the table in Appendix 1 – omindex extensions and filters can be consulted to find out what is needed. The names of common packages that include these filters are listed in http://xapian.org/docs/omega/overview.html in the "omindex operation" section.

3.8.1.2   Alternative filters

In case there is no omindex automatic filter for some of the chosen extensions or in case any of the built-in or automatic filters do not perform satisfactorily, here is a list of alternative filters.

- **Apache "Tika!"** Can filter many file types, as listed at http://tika.apache.org/0.10/formats.html. Runs around 5 times slower than omindex automatic filters and abiword but when it fails does not produce voluminous error messages as omindex automatic filters from the catdoc package have been seen to do or use huge amounts of CPU time as omindex automatic filter unrtf has been seen to do.

  It is easiest to install the complete pre-built version rather than building via Maven, for example downloading tika-app-<version>.jar from http://repo2.maven.org/maven2/org/apache/tika/tika-app/<version>.

  The sample docoll configuration file omindex.sh.cfg assumes that the Tika jar is available as /opt/apache/tika/tika.jar. If the Tika jar is /opt/apache/tika/tika-app-1.0.jar this can be set up with:

  ```
  cd /opt/apache/tika && ln -s tika-app-1.0.jar tika.jar
  ```

- **abiword** Can filter Word files prior to Word 2007. From http://www.abisource.com/ or distro repositories.

- **catdoc** Can be used as an alternative to omindex' automatic filter abiword for Word files prior to Office 2007 (the catppt and xls2csv programs from the catdoc package are used as automatic filters by omindex for PowerPoint and Excel files). From http://www.wagner.pp.ru/~vitus/software/catdoc/ or from distro repositories.

- **htmltotext** Only required if you want to alternate between the omindex automatic filter for .rtf files (unrtf) and some other filter. It is used by the docoll script unrtf_wrapper.sh which simulates the way omindex filters .rtf files. htmltotext is available from http://www.mbayer.de/html2text or from the distro repository.

- **unoconv** (http://dag.wieers.com/home-made/unoconv) converts files by feeding them to an OpenOffice.org server process so can convert everything that OpenOffice.org can (list at http://wiki.services.openoffice.org/wiki/Framework/Article/Filter/FilterList_OOo_3_0).

  In trials for docoll, unoconv and/or the OpenOffice.org server process were slow and not robust, probably because the OpenOffice.org python bindings used have not had a lot of test-and-fix by usage.

docoll includes script unoconv_wrapper.sh to facilitate using unoconv. It monitors starting the OpenOffice.org server process, unoconv run time (in case the conversion has hung), unoconv error messages (one does not indicate conversion failure) and checks for empty output. Occasionally unoconv_wrapper.sh has been seen to become a zombie on termination; when this happens, omindex cleans up after 300 seconds.

According to the [unoconv source code repository](), unoconv was updated for LibreOffice in October 2011. At the time of writing, this version has not been tested with docoll.

- **PyODConverter and JODConverter** ([http://www.artofsolving.com/opensource]()) work with an OpenOffice.org or LibreOffice server process, in the same way that unoconv does. At the time of writing, they have not been tried with docoll.

None of the tested filters have been found 100% effective. To help with this issue, docoll can be configured with multiple filters for each extension. Each time docoll starts indexing, if it has been configured with multiple filters for an extension, it will choose one at random. In this way, over multiple index runs, if a previous filter has failed to convert a file to text, every filter will be used on it.

Note: up to at least Xapian Omega 1.2.7, these filter command lines must accept the name of the input file as their last argument. Omindex filters are explained in Appendix 1 – omindex extensions and filters.

4   Setting up docoll

4.1   Synchronisation (rsync) setup

If you plan to set up file synchronisation from rsync clients, you could set up synchronisation before setting up docoll on the server so docoll's scripts have some files to work with. Details on doing so are in the related document "docoll rsync sysadmin guide".

> Note: if you do not want to set up file synchronisation from rsync clients, either now or later, you can configure other directories as source directories or populate the default directory, var/opt/docoll/default/sources.

4.2   Apache/docoll/Omega integration

docoll assumes the Apache configuration has `ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/` and Xapian Omega's omega CGI executable is /usr/lib/cgi-bin/omega/omega. If not, adjustments will be required to one or more of:

- The Apache configuration.
- The Xapian Omega installation.
- /etc/apache2/conf.d/docoll (after it has been created during docoll setup).

4.3   Pre-requisite software setup

Set up the pre-requisite software listed above that is not already installed.

Xapian Omega's omindex runs faster with the built-in and automatic filters than with the alternative filters so it makes sense to leave any alternative filters until after the first run.

4.4   Verifying the docoll server tarball

docoll server software, including sample configuration files and omega templates, is in a compressed tar archive called docoll_server-0.7.6.tgz, available from https://savannah.nongnu.org/projects/docoll via the Download link.

To confirm a good download, download the corresponding .sig file then receive/import Charles' key and verify the file:

```
gpg --recv-key --keyserver wwwkeys.us.pgp.net/ 7E99EE15
gpg --verify docoll_server-0.7.6.tgz.sig docoll_server-0.7.6.tgz
```

4.5   Installing the docoll server software

> Note: the directory structure is the one described in related document "docoll directories and files". In case you want to change it, docoll is designed to be configurable for any directory layout.

As root …

1. Create group docoll and user docoll.

2. Create directories:

```
dirs='
    /etc/opt/docoll
    /opt/docoll
    /srv/docoll
    /srv/rsync/docoll
    /var/opt/docoll
    /var/log/docoll
    /var/www/docoll
'
mkdir -p $dirs
chown docoll:docoll $dirs
```

As user docoll …

1. Install the docoll server software:

```
version=0.7.6
tar -xvzf docoll_server-$version.tgz --directory /
```

As root …

1. Install the docoll Apache configuration file and load it:

```
version=0.7.6
cp -p /opt/docoll/$version/samples/apache /etc/apache2/conf.d/docoll
chown root:root /etc/apache2/conf.d/docoll
apachectl -k graceful
```

4.6   Setting up the docoll default instance

> Notes:
>
> Multiple instances of docoll can be run on a server. Each instance may be set up to use specific:
>
> - Sources – one or more trees of files to collate
> - Collation – files copied from the sources with duplicates removed
> - Collating and indexing scripts version
> - Collating and indexing scripts configuration
> - omega CGI executable version
> - omega CGI executable templates
> - Log files

As user docoll …

```
version=0.7.6; instance=default
/opt/docoll/$version/bin/create_instance.sh -i $instance -v $version
```

4.7   Configuring the default instance

An alias is useful when configuring, for example:

```
alias dcfg='cd /etc/opt/docoll/default && ls -lrt'
```

As user docoll …

1. Create the configuration files for the instance:

```
version=0.7.6; instance=default
cd /opt/docoll/$version/samples \
    && cp -p -R *.cfg omega.conf templates /etc/opt/docoll/$instance \
    && cd /etc/opt/docoll/$instance \
    && sed -i "s/%instance%/$instance/" \
        collate.cfg omega.conf omindex.sh.cfg run_scripts.cfg templates/inc/instance_cfg
```

2. Optionally, docoll collation source file tree(s) for the instance can be created under `/var/opt/docoll/$instance/sources`

3. Adjust the instance's configuration files:

   The only change which is always necessary is to set the Postgres user docoll's password in collate.cfg.

   The instance's configuration files are in /etc/opt/docoll/$instance.

   Changes you may like to consider:

   collate.cfg

   Custom docoll source directories can be set in the SourceRootDirs section, in which case the LeadingDirsToStrip section should be changed to match.

   docoll's default extensions list (.doc, .docx, .odp, .ods, .odt, .pdf, .pps, .ppsx, .ppt, .pptx, .rtf, .txt, .xls, .xlsx) can be changed. If this list is changed, templates/inc/file_ext_checkboxes must be changed to suit (details below).

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omindex.sh.cfg The default filters used by omindex can be changed. omindex's default filters are faster than most of the alternatives so it is better to defer changing them until after the first run.

run_scripts.cfg Log emailing can be set up. For testing, this can be set to "always".

templates/inc/file_ext_checkboxes Need only be changed if the list of extensions has been changed in collate.cfg. Change the first line to match.

templates/inc/instance_cfg The search web page title can be changed from "docoll <instance> instance search".

4. Set up a cron job to run docoll's collating and indexing (C+I) scripts:

   The first run takes longest so you may like to run the C+I scripts manually a few times before setting up the cron job to find out how long the C+I scripts normally take to run. The command to do so are described in 5.1 Running the docoll scripts.

   The choice of frequency depends on:

   - How quickly the files in the docoll sources change.

   - How quickly you want new documents to appear in the interactive search results.

   - How long the C+I scripts take to run.

   The choice of time-of-day is not critical because:

   - After the first run, to create the Xapian database, interactive searching is available while the scripts are running.

   - The default configuration for the scripts sets `nice` and `ionice` values for low impact on server performance.

   There is a sample cron job for the default instance. It can be installed and then modified to suit your frequency and time of day requirements. As user docoll ...

   ```
   version=0.7.6
   crontab /opt/docoll/$version/samples/cronjob
   crontab -e
   ```

   … and make any changes required then save.

5 Testing docoll

Some source files are needed for the test. These may be in /srv/rsync/docoll/default and/or in /var/opt/docoll/default/sources.

5.1 Running the docoll scripts

The docoll scripts can be run either by cron job or manually.

If running manually and there are many files in the sources, the scripts will write voluminous logging to the terminal. This can be suppressed by using SET_HAVE_TTY_FALSE as shown below:

```
export SET_HAVE_TTY_FALSE=true    # Optional, to force logging to log files
instance=default
cd /opt/docoll/$instance \
```

```
              && nohup ./run_scripts.sh /etc/opt/docoll/$instance/run_scripts.cfg &
```

5.2   Checking the logs

An alias is useful when checking the logs, for example:

```
    alias dlog='cd /var/log/docoll/default && ls -lrt | tail -8 && du -hs .'
```

The log files are written in /var/log/docoll/default. When the run has finished, the run_scripts.sh log will be the latest one. In case an omindex filter hangs, `top` will not show any processor usage by docoll processes until omindex kills it after 300 seconds.

5.3   Testing interactive searching

Browse http://<webserver name or IP address>/docoll, where the part in angled brackets is substituted by appropriate string, do a search and ensure that a file in the search hit list can be viewed or downloaded.

6   Monitoring

/var/log/rsyncd.log provides useful information, not only about errors but, by showing which files are being transferred, about over-inclusive or under-inclusive configuration of the rsync clients.

The run_scripts.sh logs in /var/log/docoll/default provide summaries. They show whether the scripts reported errors, in which case their individual logs can be viewed for more detail. It also shows the run times of the scripts it called; if these are unusually short or long, it probably indicates trouble.

If run_scripts.cfg has been edited to email the run_scripts.sh log, the log will be emailed according to the always|warning|error setting.

7   Setting up a non-default instance

The procedure to set up a non-default instance is as described in 4.6 Setting up the docoll default instance except:

- In the `instance=default` commands, `default` is changed to the new instance name.

- If a cron job is required for the new instance (because the source files will change), the easiest way is, as user docoll, to run **crontab -e** then copy the default instance's job line and change the three "default"s to the new instance name and adjust the time.

- Interactive users of the new instance access it via http://<webserver name or IP address>/docoll/<instance name> where the parts in angled brackets are substituted by appropriate strings.

8   Removing an instance

As user docoll …

```
        instance=<instance>
        /opt/docoll/$version/bin/remove_instance.sh -i $instance
```

If required, remove the sources synchronised from the rsync clients:

```
instance=<instance>; rm -fr /srv/rsync/docoll/$instance
```

9   Miscellaneous techniques

9.1   Switching collations

Xapian's omindex records paths relative to its directory argument. This allows a new collation to be indexed and then switched into production. For example, if the production collation is /srv/docoll/default and the production Xapian database is /var/opt/docoll/default/xapian_db, it is possible to index a new collation at /srv/docoll/new into a Xapian database in /var/opt/docoll/new/xapian_db and then put the new version into production by:

```
rm  /var/opt/docoll/default/xapian_db/*
cp -p /var/opt/docoll/new/xapian_db/* /var/opt/docoll/default/xapian_db
mv /srv/docoll/default /srv/docoll/default.old
mv /srv/docoll/new /srv/docoll/default
```

9.2   Restoring a collating scripts' database

```
instance=default
export PGPASSWORD=<password>
pg_restore \
  --dbname=docoll \
  --host=localhost \
  --port=5432 \
  --verbose \
  -U docoll \
  /var/opt/docoll/$instance/backup/docoll_$instance.<timestamp>
```

9.3   Restoring a Xapian index database

```
instance=default
cd /var/opt/docoll/$instance/ \
    && rm -f xapian_db/* \
    && tar xzvf backup/Xapian_index.<timestamp>.tgz -d xapian_db
```

10   Problem investigation

Apart from the usual sysadmin issues such as running out of disk space and misconfiguration, most docoll problems are likely to be docoll scripts bugs. These are developer issues; the related documents for developers may help investigate them: "docoll collating and indexing scripts developer's guide" and "docoll interactive search developer's guide".

11   Appendix 1 – omindex extensions and filters

The table below lists the default omindex mappings from file name extension to "MIME type" and whether the filter to convert the file to plain text is built in to omindex or is automatically used by omindex if available on the system.

"MIME type" is not really a MIME type; by default omindex maps from the file name extension to the "MIME type". It is listed here in case you want to configure docoll to run omindex with an alternative filter command for some file type(s); this must be configured by "MIME type", not by the extension, as required by omindex (in some cases multiple extensions map to a single "MIME type").

In summary, omindex has built-in filters for HTML, PHP, text files, CSV (Comma-Separated Values) files, and AbiWord documents.

Extension	"MIME type"	Type	Built-in	Automatic	Notes or filter for Automatic
abw	application/x-abiword	AbiWord	Y		
ai	application/postscript			Y	Requires both ps2pdf and pdftotext
csv	text/csv	CSV	Y		
deb	application/x-debian-package			Y	dpkg-deb
djv	image/vnd.djvu			Y	djvutxt
djvu	image/vnd.djvu			Y	djvutxt
doc	application/msword			Y	antiword
docm	application/vnd.openxmlformats-officedocument.wordprocessingml.document				
docx	application/vnd.openxmlformats-officedocument.wordprocessingml.document	Word 2007			
dot	application/msword	Word template		Y	antiword
dotm	application/vnd.openxmlformats-officedocument.wordprocessingml.template				
dotx	application/vnd.openxmlformats-officedocument.wordprocessingml.template	Word 2007 template			
dvi	application/x-dvi			Y	catdvi
eps	application/postscript			Y	Requires both ps2pdf and pdftotext
htm	text/html	HTML	Y		
html	text/html	HTML	Y		
msg	application/vnd.ms-outlook	Outlook .msg email		Y	perl with Email::Outlook::Message and HTML::Parser modules
odb	application/vnd.oasis.opendocument.database			Y	unzip
odc	application/vnd.oasis.opendocument.chart			Y	unzip
odf	application/vnd.oasis.opendocument.formula			Y	unzip
odg	application/vnd.oasis.opendocument.graphics			Y	unzip
odi	application/vnd.oasis.opendocument.image			Y	unzip
odm	application/vnd.oasis.opendocument.text-master			Y	unzip
odp	application/vnd.oasis.opendocument.presentation			Y	unzip
ods	application/vnd.oasis.opendocument.spreadsheet			Y	unzip
odt	application/vnd.oasis.opendocument.text			Y	unzip
otc	application/vnd.oasis.opendocument.chart-template			Y	unzip
otf	application/vnd.oasis.opendocument.formula-template			Y	unzip
otg	application/vnd.oasis.opendocument.graphics-template			Y	unzip
oth	application/vnd.oasis.opendocument.text-web			Y	unzip
oti	application/vnd.oasis.opendocument.image-template			Y	unzip
otp	application/vnd.oasis.opendocument.presentation-template			Y	unzip

Extension	"MIME type"	Type	Built-in	Automatic	Notes or filter for Automatic
ots	application/vnd.oasis.opendocument.spreadsheet-template			Y	unzip
ott	application/vnd.oasis.opendocument.text-template			Y	unzip
pdf	application/pdf			Y	pdftotext
php	text/html	HTML	Y		The omindex HTML parser ignores PHP code.
pl	text/x-perl	Text	Y		pod2text
pm	text/x-perl	Text	Y		pod2text
pod	text/x-perl	Text	Y		pod2text
potm	application/vnd.openxmlformats-officedocument.presentationml.template				
potx	application/vnd.openxmlformats-officedocument.presentationml.template	PowerPoint 2007 template			
pps	application/vnd.ms-powerpoint	Powerpoint slideshow		Y	catppt
ppsm	application/vnd.openxmlformats-officedocument.presentationml.slideshow				
ppsx	application/vnd.openxmlformats-officedocument.presentationml.slideshow	PowerPoint 2007 slideshow			
ppt	application/vnd.ms-powerpoint			Y	catppt
pptm	application/vnd.openxmlformats-officedocument.presentationml.presentation				
pptx	application/vnd.openxmlformats-officedocument.presentationml.presentation	PowerPoint 2007 presentation			
ps	application/postscript			Y	Requires both ps2pdf and pdftotext
rpm	application/x-redhat-package-manager			Y	rpm
rtf	text/rtf			Y	unrtf
shtml	text/html	HTML	Y		
stc	application/vnd.sun.xml.calc.template			Y	unzip
std	application/vnd.sun.xml.draw.template			Y	unzip
sti	application/vnd.sun.xml.impress.template			Y	unzip
stw	application/vnd.sun.xml.writer.template			Y	unzip
svg	image/svg+xml				
sxc	application/vnd.sun.xml.calc			Y	unzip
sxd	application/vnd.sun.xml.draw			Y	unzip
sxg	application/vnd.sun.xml.writer.global			Y	unzip
sxi	application/vnd.sun.xml.impress			Y	unzip
sxm	application/vnd.sun.xml.math			Y	unzip
sxw	application/vnd.sun.xml.writer			Y	unzip
text	text/plain	Text	Y		
txt	text/plain	Text	Y		
udeb	application/x-debian-package			Y	dpkg-deb
wpd	application/vnd.wordperfect			Y	wpd2text
wps	application/vnd.ms-works			Y	wps2text
wpt	application/vnd.ms-works	Works template		Y	wps2text
xlb	application/vnd.ms-excel			Y	xls2csv
xlr	application/vnd.ms-excel	Later Microsoft Works		Y	xls2csv
xls	application/vnd.ms-excel			Y	xls2csv
xlsm	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet				

Extension	"MIME type"	Type	Built-in	Automatic	Notes or filter for Automatic
xlsx	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet	Excel 2007			
xlt	application/vnd.ms-excel	Excel template		Y	xls2csv
xltm	application/vnd.openxmlformats-officedocument.spreadsheetml.template				
xltx	application/vnd.openxmlformats-officedocument.spreadsheetml.template	Excel 2007 template			
xps	application/vnd.ms-xpsdocument			Y	unzip
zabw	application/x-abiword-compressed	AbiWord compressed	Y		Also requires gzip

Notes on sources of information for the table:

1. General information for the table came from the "omindex operation" section of http://xapian.org/docs/omega/overview.html.
2. File name extension to "MIME type" mappings came from the omindex source code. The latest version can be found at https://gitorious.org/xapian/xapian/blobs/master/xapian-applications/omega/omindex.cc in the mime_map definition which started on line 1026 at the time of writing.

   The command used to prepare data copied from that page was:

   ```
   grep -E -v '^([0-9])*[[:space:]]*$|^[[:space:]]*//' | sed -e 's/
   [[:space:]]*mime_map\["//' -e 's/"] = "/\t/' -e 's/"; \/\/ /\t/' -e 's/";$//'
   ```

   The tabs in the output allowed it to conveniently be converted into a table in OpenOffice Writer and then copied and pasted into the table above.

12   Appendix 2 – Installing Xapian 1.2.8 from source

In case no packages of the desired versions are available, here are commands and a script to build and install from source

```
ver=1.2.8
repository=/root/Repository
prefix=/usr

pkg=xapian-core-$ver
cd $repository \
    && wget http://oligarchy.co.uk/xapian/$ver/xapian-core-$ver.tar.gz
cp $repository/$pkg.tar.gz /tmp \
    && cd /tmp \
    && tar xzvf $pkg.tar.gz \
    && cd $pkg \
    && ./configure --prefix=/usr \
    && make \
    && make install

pkg=xapian-omega-$ver
cd $repository \
    && wget http://oligarchy.co.uk/xapian/$ver/xapian-omega-$ver.tar.gz
cp /root/Repository/$pkg.tar.gz /tmp \
```

```
    && cd /tmp \
    && tar xzvf $pkg.tar.gz \
    && cd $pkg \
    && ./configure --prefix=/usr \
    && make
```

The default Xapian Omega source installation does not suit docoll's requirements which are based on how Debian packages install it. This quick-and-dirty script, specifically for Xapian Omega 1.2.8, installs it as required for docoll.

It normally installs to the default locations but can be made to install everything to another directory, given as an argument. This is useful if you want to generate a list of the files installed for use when removing it.

```bash
#! /bin/bash

# Installs Xapian Omega 1.2.8 for docoll.
# Inspired by the way Olly Betts (Xapian developer) packages it for Debian.

ver=1.2.8

if [[ $1 != "" ]]; then
    root=$1
    if [[ $root =~ ^/ ]]; then
        echo "Installing version $ver to $root"
    else
        echo "Installation directory must begin with /"
        exit 1
    fi
else
    read -p 'Install for real? (Y to confirm): '
    [[ $REPLY != Y ]] && exit 0
    root=
fi

dir=/tmp/xapian-omega-$ver
cd $dir
if [[ $? -ne 0 ]]; then
    echo "The source code must have been built in $dir before running this script"
    exit 1
fi

#  Create required directories if not installing to /
if [[ ! -d $root ]];then
    mkdir -p \
        $root/etc \
        $root/usr/bin \
        $root/usr/lib \
        $root/usr/share/doc \
        $root/usr/share/images \
        $root/usr/share/man/man1
fi

chown -R root:root *

# Install as Olly's pro-forma file list as far as practicable
cp -p omega.conf $root/etc/omega.conf
cp -p omindex $root/usr/bin/omindex
cp -p scriptindex $root/usr/bin/scriptindex
mkdir -p $root/usr/lib/cgi-bin/omega/
cp -p omega $root/usr/lib/cgi-bin/omega/omega
mkdir -p $root/usr/lib/xapian-omega/bin/
cp -p outlookmsg2html $root/usr/lib/xapian-omega/bin/outlookmsg2html
```

```
#/usr/share/doc-base/xapian-omega-docs    Not found
mkdir -p $root/usr/share/doc/xapian-omega/examples/
#/usr/share/doc/xapian-omega/TODO.Debian    Not found
#/usr/share/doc/xapian-omega/changelog.Debian.gz    Not found
#/usr/share/doc/xapian-omega/changelog.gz    Not found
#/usr/share/doc/xapian-omega/copyright    Not found
cp -p dbi2omega $root/usr/share/doc/xapian-omega/examples/dbi2omega
cp -p htdig2omega $root/usr/share/doc/xapian-omega/examples/htdig2omega
cp -p htdig2omega.script $root/usr/share/doc/xapian-omega/examples/htdig2omega.script
cp -p mbox2omega $root/usr/share/doc/xapian-omega/examples/mbox2omega
cp -p mbox2omega.script $root/usr/share/doc/xapian-omega/examples/mbox2omega.script
mkdir -p $root/usr/share/xapian-omega/templates/
ln -s $root/usr/share/xapian-omega/templates/ $root/usr/share/doc/xapian-
omega/examples/templates
cp -p docs/* $root/usr/share/doc/xapian-omega/
rm $root/usr/share/doc/xapian-omega/Makefile*
mkdir -p $root/usr/share/images/xapian-omega/
cp -p images/* $root/usr/share/images/xapian-omega/
(
    cp -p omindex.1 scriptindex.1 /tmp \
        && cd /tmp \
        && gzip -9 omindex.1 scriptindex.1 \
        && cp -p omindex.1.gz scriptindex.1.gz $root/usr/share/man/man1/
    rm -f omindex.1.gz scriptindex.1.gz
)
mkdir -p $root/usr/share/xapian-omega/templates/inc
rsync -a --quiet templates/ $root/usr/share/xapian-omega/templates/

# Extra to Olly's proforma file list
cp -p AUTHORS COPYING ChangeLog NEWS README TODO $root/usr/share/doc/xapian-omega/ #
Equivalent to some of the "Not found"?
#  extra/omegascript.vim    Not found
if [[ ! -d $root/var/lib/omega/templates ]]; then
    mkdir -p $root/var/lib/omega/templates
    rsync -a --quiet templates/ $root/var/lib/omega/templates
else
    echo "$root/var/lib/omega/templates already exists; not creating or populating it"
    echo "The $ver example templates are installed in $root/usr/share/xapian-
omega/templates/"
fi
mkdir -p $root/var/log/omega
mkdir -p $root/var/lib/omega/cdb
```

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Version 1.3, 3 November 2008

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