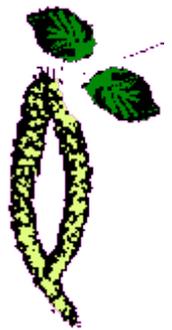


# **docoll interactive search developer's guide**



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# 1 Introduction

This is the developer's guide for the interactive searching component of the docoll 0.7.6 system.

There is an overview of the docoll system in related document "docoll system introduction".

## 1.1 Related docoll documentation

In descending order of likely usefulness to a new reader:

- "docoll system introduction"
- "docoll directories and files"
- "docoll server sysadmin guide" (how it all fits together)
- "docoll packager's guide" (also useful for making backups of work in progress)
- RELEASE (needs updating with changes made)

## 1.2 Xapian and omega resources

- Xapian home page: <http://xapian.org/>
- Xapian documentation: <http://xapian.org/docs/>
- Xapian omega overview: <http://xapian.org/docs/omega/overview.html>
- Xapian OmegaScript: <http://xapian.org/docs/omega/omegascript.html>
- Xapian WIKI: <http://trac.xapian.org/wiki>
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# 2 Overview

The docoll interactive searching component comprises:

- Interactive clients using web browsers.
- On the docoll server:
  - A web server such as Apache.
  - Xapian's omega, running as a CGI binary.
  - Custom omega templates.

The custom omega templates are the subject of this document. The others items above are covered in related document "docoll server sysadmin guide".

# 3 Files and directories

Described in related document "docoll directories and files".

## 4 docoll interactive search operation

The user browses <http://<server ID>/docoll/<instance>>. For the default instance, the user may browse <http://<server ID>/docoll>.

The web server is configured by `/etc/apache2/conf.d/docoll` to set environment variable `OMEGA_CONFIG_FILE` to `/etc/opt/docoll/<instance>/search/omega.conf` and then to run the omega CGI executable with a query string of `DB=<instance>&FMT=docoll`.

The omega CGI executable is normally `/usr/lib/cgi-bin/omega/omega`. For running a specific version, it may be `/usr/lib/cgi-bin/omega/<version>/omega`.

omega takes its configuration from `/etc/opt/docoll/<instance>/omega.conf` which sets the Xapian index database directory and the templates directory.

omega builds a web page, based on template `/etc/opt/docoll/<instance>/templates/docoll`. Omega templates are HTML with embedded OmegaScript. Omega processes the OmegaScript and substitutes the output into the HTML. The template `/etc/opt/docoll/<instance>/templates/docoll` has OmegaScript to include files from the `/etc/opt/docoll/<instance>/templates/inc` directory.

When the user does a search, omega generates hit links starting with `/docoll/<instance>/hits/` and ending with the relative path of the file under `/srv/docoll/<instance>`.

If the user clicks on one of the hit links, the web server prefixes its own DocumentRoot. If DocumentRoot is `/var/www`, this generates a path beginning with `/var/www/docoll/<instance>/hits`. The web server is configured to follow that symlink to `/srv/docoll/<instance>` where the file is server from.

Depending on how the user's web browser is configured that will open or download the file.

## 5 Configuration

The full docoll instance configuration procedure is in related document "docoll server sysadmin guide" in section "docoll default instance setup".

The equivalent manual steps for the interactive search components only is:

Edit `/etc/opt/docoll/<instance>/omega.conf`, changing:

- `database_dir` to `/var/opt/docoll/<instance>/xapian_db`
- `template_dir` to `/etc/opt/docoll/<instance>/templates`

Edit `/etc/opt/docoll/<instance>/templates/inc/instance_cfg`, changing:

- The title, as required
- `docoll_hits_dir` to `/docoll/<instance>/hits`

## 6 Templates

Templates are written in OmegaScript (reference: <http://xapian.org/docs/omega/omegascript.html>). They are processed by omega into HTML.

Four templates have been developed for docoll. They customise the search page displayed to the user by omega:

- `docoll`: based on the as-distributed template "query"

- `inc/duplicatesdropbox`: adds a drop box allowing the user to control whether duplicate files are displayed.
- `inc/file_ext_checkboxes`: adds a series of checkboxes, allowing the user to control whether files with specific extensions are displayed. Thanks to Xapian developer Olly for suggesting much more elegant code than the original.
- `inc/instance_cfg`: generates the page title and prefixes hit links with `/docoll/<instance>/hits`.

The other templates in the `inc` directory, installed during docoll installation and instance setup, are Omega default templates required by the docoll template (as they were by the original Omega query template on which the docoll template is based).

## 6.1 docoll

In case the docoll template has to be re-created from the query template, for example if the query template is changed in a future Xapian release, here is a context diff based on the Omega 1.2.8 version of the query template. The parts that include the other three docoll templates are in green.

```
docoll@CW8vDS:~$ diff -u /var/lib/omega/templates/query
/opt/docoll/0.7.6/samples/templates/docoll
--- /var/lib/omega/templates/query 2011-12-14 10:58:00.000000000 +0530
+++ /opt/docoll/0.7.6/samples/templates/docoll 2012-02-10 09:23:39.000000000 +0530
@@ -2,6 +2,7 @@
<html>
  $set{flag_spelling,$ne{$cgi{SPELL},0}}
  $set{thousand,$.}$set{decimal,.}$setmap{BN,,Any Country,uk,England,fr,France}
+$include{inc/instance_cfg}
  ${
  $def{PREV,
  $if{$ne{$topdoc,0},<INPUT TYPE=image NAME="&lt;" ALT="&lt;";"
@@ -31,7 +32,7 @@
  $def{NEXT,$if{$ne{$last,$msize},<INPUT TYPE=submit NAME="&gt;" VALUE="Next">}}

<head>
-<title>$if{$query,Omega Search: $html{$query},Omega Search}</title>
+<title>$if{$query,$opt{docoll_title}: $html{$query},$opt{docoll_title}</title>
  $if{$opt{topterms},$include{inc/toptermsjs}}
  <script type="text/javascript" language="javascript"><!--
  function f2(n) {return (n>9?"":"0")+n;}
@@ -54,8 +55,13 @@
  document.getElementById("omega-autofocus").focus();
</script>
<INPUT TYPE=SUBMIT VALUE="Search">
-<hr>
-$if{$include{inc/anyalldropbox},$include{inc/anyallradio}}
+<br><br>
+$include{inc/anyalldropbox}
+Dates (YYYYMMDD). Start: <INPUT NAME=START VALUE="$cgi{START}" SIZE=8>
+End: <INPUT NAME=END VALUE="$cgi{END}" SIZE=8>
+Duplicates: $include{inc/duplicatesdropbox}
+<br>
+$include{inc/file_ext_checkboxes}
  $if{$opt{topterms},
  <div title="Suggested terms to add to your query"
  style="text-align:left;background:#cfc;border:1px solid green;padding:2px;font:11px verdana$.
  arial$. helvetica$. sans-serif;">
@@ -101,9 +107,9 @@
</div>
</div>
</td>
-<td><B><A HREF="$html{$field{url}}">$html{$or{$field{caption},$field{title},
$prettyurl{$field{url}},Untitled}}</A></B><BR>
+<td><B><A HREF="$opt{docoll_hits_dir}$html{$field{url}}">$prettyurl{$html{$or{$field{caption},
```

```

$field{title},$list{$split{%20,$field{url}}, },Untitled}}</A></B><BR>
<small>$highlight{$field{sample},$terms}$if{$field{sample},...}</small><br>
-<A HREF="$html{$field{url}}">$html{$field{url}}</A><br>
+<A HREF="$opt{docoll_hits_dir}$html{$field{url}}">$prettyurl{$html{$field{url}}}</A><br>
<small>
  matching:
  <i>$list{$map{$terms,$html{$prettyterm{$_}}},$. ,</i> and <i></i></small>${for
lynx:}<p></td></tr>}
@@ -134,15 +140,11 @@
  $if{$ne{$topdoc,0},<INPUT TYPE=hidden NAME=TOPDOC VALUE=$topdoc>}
  $if{$ne{$hitsperpage,10},<INPUT TYPE=hidden NAME=HITSPERPAGE VALUE=$hitsperpage>}
  $if{$fmt,<INPUT TYPE=hidden NAME=FMT VALUE="$html{$fmt}">}
-<input type=hidden name=COLLAPSE value="$html{$cgi{COLLAPSE}}">
  $if{$queryterms,<INPUT TYPE=hidden NAME=xP VALUE="$html{$queryterms}">}
  <INPUT TYPE=hidden NAME=xDB VALUE="$html{$dbname}">
  <INPUT TYPE=hidden NAME=xFILTERS VALUE="$html{$filters}">
  $list{$relevants,<INPUT TYPE=hidden NAME=R VALUE=".,,">}
  $if{$cgi{THRESHOLD},<INPUT TYPE=hidden NAME=THRESHOLD VALUE="$html{$cgi{THRESHOLD}}">}
-$ {Preserve any B filters used - this needs modifying if you modify this template
-   to have B on radio buttons, SELECT, etc}
-$map{$cgilist{B},<INPUT TYPE=hidden NAME=B VALUE="$html{$_}">}
</FORM>
<hr><div align=right><i><small><a
href="http://xapian.org/">$html{$version}</a></small></i></div>
</body>

```

## 6.2 duplicatesdropbox

This template creates this part of the search web page:

Duplicates:

```

<SELECT NAME=COLLAPSE>
$if{$eq{$cgi{COLLAPSE},},
  <OPTION VALUE="" SELECTED>Yes
  <OPTION VALUE=1>No
'
  <OPTION VALUE="">Yes
  <OPTION VALUE=1 SELECTED>No
}
</SELECT>

```

## 6.3 file\_ext\_checkboxes

This template creates this part of the search web page:

Extensions: doc:  docx:  odp:  ods:  odt:  pdf:  pps:  ppsx:  ppt:  rtf:  txt:  xls:  xlsx:

```

$set{EXTS,$split{Edoc Edocx Eodp Eods Eodt Epdf Epps Epspx Eppt Ertf Etxt Exls Exlsx}}
$map{$or{$cgilist{B},$opt{EXTS}},$setmap{BE,$_,1}}
Extensions:
$map{$opt{EXTS},
$substr{$_,1}:<INPUT TYPE=checkbox NAME=B VALUE=$_ $if{$eq{$opt{BE,$_},1},CHECKED}>}

```

## 6.4 instance\_cfg

This template sets the page title and the search hit link prefixes. The pre-customised version with %instance % not yet changed to the instance name is:

```

$set{docoll_title,docoll %instance% instance search}
$set{docoll_hits_dir,/docoll/%instance%/hits}

```

## 7 Development, test etc.

Development, test etc. docoll instances may be set up just like any other instance. Details in related document "docoll server sysadmin guide". The facility to run a specific version of Omega for the instance may be useful.

## 8 Packaging

Packaging is described in related document "docoll packagers guide".

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